

**DATE:** 30 May 2007

**TO:** Transportation Project Consultants

**FROM:** Darren Kettle, Director of Freeway Construction

**SUBJECT:** Request for Qualifications to Provide Engineering Design Services for I-10 Westbound Lane Addition Project.

Attached is our Request for Qualifications (RFQ) to select a qualified firm to assist San Bernardino Associated Governments (SANBAG) with the preparation of the Plans, Specifications, and Estimates (PS&E) culminating in a construction bid package for the I-10 Westbound Lane Addition Project.

Those CONSULTANTS or individuals intending to submit Statement of Qualifications (SOQ) should note the schedule contained in Section XI of the attached document. It is our intention, subject to Board approval, to have the selected firm under contract by September 2007.

CONSULTANTS will have access to reference documents from **31 May 2007** through **25 June 2007** by appointment only. Documents available for review and purchase at the SANBAG offices include the *draft* Project Report/Project Study report (PR/PSR), Environmental Document and corresponding technical studies, and the Mandatory and Advisory Design Exceptions. Please contact Ms. Deanne Oberdank or Ms. Christine Coleman at (909) 884-8276 to schedule a review.

Individuals and CONSULTANTS submitting SOQs for this project will be evaluated based on qualifications and experience on similar and relevant projects. Emphasis will be placed on the capabilities of key project individuals and local preference.

Voters in San Bernardino County approved Measure I in November 1989, enacting a one-half cent sales tax for transportation purposes over a 20-year period. This project is funded by Measure I and State funds. Therefore, SANBAG's, the designated Agency to administer the Measure I program, Consultant Selection Policy for local preference applies. To receive full credit for local preference the prime firm must have a main, headquarter, or major regional office in San Bernardino county prior to September 5, 2006 and have a minimum of one senior management employee and nine employees working full time from the San Bernardino county locations.

Also attached for your reference are the *draft* Scope of Services, a sample contract, and SANBAG's Consultant Selection Policy. These items are included on SANBAG's internet website: [www.sanbag.ca.gov](http://www.sanbag.ca.gov) under "Bids, RFPs and RFQs". Please check the website for schedule updates.

Eight (8) copies of the SOQ must be submitted to SANBAG's San Bernardino office by 12:00 P.M., **June 27, 2007**.

Statement of Qualifications and correspondence shall be directed to:

Mr. Darren Kettle  
Director of Freeway Construction  
San Bernardino Associated Governments  
1170 W. 3<sup>rd</sup> Street, 2<sup>nd</sup> Floor  
San Bernardino, California 92410-1715

All questions and comments regarding this Request for Qualifications or the project shall be directed to:

Lisa DaSilva  
Project Manager  
(909) 884-8276

DK: lmd  
Attachment

cc: Jim Beers  
File 1024.20

SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY /  
SAN BERNARDINO ASSOCIATED GOVERNMENTS  
(SANBAG)

**REQUEST FOR QUALIFICATIONS**

TO

**Provide Engineering Design Services**

FOR

**I-10 Westbound Lane Addition Project**

IN

CITIES OF REDLANDS AND YUCAIPA

Contract C08002

Issued: 30 May, 2007

**SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY/  
SAN BERNARDINO ASSOCIATED GOVERNMENTS**

**REQUEST FOR QUALIFICATIONS**

**TO**

**Provide Design Engineering Services**

**I. INTRODUCTION**

The San Bernardino Associated Governments (SANBAG), acting as the San Bernardino County Transportation Authority, is soliciting Statement of Qualifications (SOQ) from all qualified CONSULTANTS to provide design engineering services to prepare the Plans, Specifications, and Estimates (PS&E) for the proposed freeway lane addition on westbound Interstate 10 between Ford St, Redlands and Live Oak Canyon, Yucaipa.

Voters in San Bernardino County approved Measure I in November 1989, enacting a one-half cent sales tax for transportation purposes over a 20-year period. This project is funded by Measure I and State funds. Therefore, SANBAG's, the designated Agency to administer the Measure I program, Consultant Selection Policy for local preference applies.

The contract will be awarded without discrimination based on race, religion, color, age, sex, or national origin.

**II. PROJECT AND SERVICES DESCRIPTIONS**

The proposed project is to widen I-10 between the Ford Street interchange in the city of Redlands and Live Oak Canyon interchange in the city of Yucaipa. The purpose of this project is to relieve traffic congestion currently experienced at and in the vicinity of the project.

The PR/PSR consists of one build alternative which purposes to construct the lane in the median of I-10 from the Ford St interchange to the Yucaipa Blvd interchange. From Yucaipa Blvd to the Live Oak Canyon westbound on-ramp the lane will be constructed on the outside. The project also includes drainage improvements, retaining walls, a sound wall, and tie-ins to the Yucaipa Blvd. westbound on-ramp.

The environmental document, a CEQA CE, the mandatory and advisory design exceptions, and the Geometric Approval Drawings (GADs) have been approved. It is anticipated that the PR/PSR will be approved prior to the start of the PS&E contract. Completion of this document is in the scope of another contract, but coordination with the consultant preparing this document may be required.

This project also interfaces with the Live Oak Canyon Interchange project which is scheduled to start construction in late 2007 and take approximately 18 months to complete. The scope includes a new over-crossing, realigning / widening the bridge structure and roadway, and realigning both the east and west bound ramps. The westbound on-ramp acceleration lane is being extended into this project's limits.

### **III. MATERIALS FURNISHED BY SANBAG**

All software, data, reports, surveys, drawings, and other documents furnished to the CONSULTANT by SANBAG for the CONSULTANT's use in the performance of services shall be made available only for use in performing the assignment and shall remain the property of SANBAG. All such materials shall be returned to SANBAG upon completion of services, termination of the Agreement, or other such time as SANBAG may determine.

### **IV. CALTRANS AND LOCAL AGENCY RELATIONSHIP**

This contract is intended to provide a completed Ready to List PS&E package for the project described in Section II. SANBAG and CALTRANS will work together to manage the CONSULTANT's work efforts. SANBAG will be responsible for, and will be the sole point of contact for all contractual matters. CALTRANS will be responsible for providing technical oversight of the CONSULTANT's work efforts. The CONSULTANT shall take direction from SANBAG and shall regularly inform both SANBAG and CALTRANS of design progress and of all outstanding issues.

### **V. CONTRACT TYPE**

A cost reimbursable plus percentage fee contract, with a total not to exceed amount, will be issued for the contract. Any services provided by the CONSULTANT, which are not specifically covered by the Contract, will not be reimbursed. It is the CONSULTANT's responsibility to recognize and notify SANBAG when services not covered under the Contract have been requested.

The terms of the Contract will be effective for the duration of the project.

### **VI. MINORITY BUSINESS OPPORTUNITIES**

Due to the absence of Federal Funding for this contract, no goals have been established for contracts with Disadvantaged Business Enterprises (DBE), Women-owned Business Enterprises (WBE) or Disabled Veterans Business Enterprises (DVE).

### **VII. STATEMENT OF QUALIFICATIONS INSTRUCTIONS**

Statement of Qualifications (SOQ) will be accepted until 12:00 PM, 27 June 2007. Eight (8) copies are required. SANBAG reserves the right to accept or reject late SOQs at its discretion. Acceptance of a late submittal shall not be construed to mean that SANBAG will accept any late SOQ. SOQs shall be delivered to:

Mr. Darren Kettle  
Director of Freeway Construction  
San Bernardino Associated Governments  
1170 W. Third Street, Second Floor  
San Bernardino, CA 92410

SOQs must contain the information listed below and must be compiled in the following format:

A. Cover Letter

Provide the following information:

- A statement requesting SANBAG to evaluate the submitted SOQ based upon the Scope of Services for the I-10 Westbound Lane Addition Project.
- Summary description of the work to be performed by CONSULTANT and each sub CONSULTANT firm proposed for the project and an estimate of the percentage of work to be performed by each CONSULTANT.
- Indicate the location of the office from where the services are to be performed. If services are to be shared among CONSULTANTS and offices indicate where each office is located and what services are to be performed at each office.
- In accordance with SANBAG Policy No. 11000-R9, Sect. 7.A.2.f, provide a response to the following question: Has your firm ever been terminated from a contract? If the answer is yes, see item C below.
- A memorandum from a principal from each sub CONSULTANT firm indicating the specific portion of services the sub CONSULTANT will be performing.

B. Contract Termination Circumstances:

If CONSULTANT has ever been terminated from a contract, describe the facts and circumstances in detail, on a separate sheet. See policy for details.

C. U.S. General Services Administration Standard Form SF330:

“Architect-Engineer Qualifications”. The Form SF330 PART I must conform to the following format:

1. Provide a separate Form SF330 for the prime CONSULTANT and each sub CONSULTANT. Sub CONSULTANT’s need not supply Sections C and H.
2. Prime CONSULTANT’s should list sub CONSULTANT’s in Section C.
3. Provide an Organizational Chart in Section D:
  - Show the relationships between personnel and support staff who are expected to participate on the project.
  - For each person, indicate the CONSULTANT firm with whom they are employed.
  - Show the aspects of the services each person will be responsible for performing.
4. List key personnel in Section E. Section E must conform to the following requirements:
  - Every person whose resume is provided in Section E must also be shown on the organizational chart. Resumes of persons who are not shown on the organization chart will not be considered.

- Section E, number 13 must describe the function the person will be expected to fulfill in connection with the project.
- Section E, number 17 must list the person's active registrations in California, with the California Registration Number. Personnel (Resident Engineers / Inspectors) in responsible charge of Engineering Services must be registered Civil Engineers in the State of California.
- Section E, number 19 should provide a brief history of each person's relevant project experience, including descriptions of his/her role and tasks that he/she performed on each project. Also, identify key tasks each person is expected to perform for these projects under his/ her assigned function.

5. Section F should conform to the following requirements:

- Projects listed in Section F must be projects worked on by personnel shown on the organizational chart and whose resumes are included in Section E. For each project listed, the personnel included in Section E who worked on the project and their project position must be shown.
- In Section F, number 23, include the owner's telephone number and the name of a contact person who can provide a reference. Also include the name and telephone number of the primary contact for the prime CONSULTANT, if necessary. Projects without references and telephone numbers will not be considered. List no more than ten projects.
- In Section F, number 24, indicate the project value, the contract value, and the respective values (project and contract) for which the firm was responsible, describe the nature of the firm's responsibility and indicate whether the firm was the prime CONSULTANT or a sub CONSULTANT.
- Additional information may be provided in Section F to highlight or expand on experience from projects that are especially applicable to the proposed Scope of Services, including an indication of the scope of related services for which the CONSULTANT was responsible.

6. In Section G indicate the relationship of personnel shown on the proposed organization chart to the example projects.

7. Section H should demonstrate the CONSULTANT's approach and understanding of the proposed scope of services. This section should provide a detailed discussion of the work tasks and management activities necessary for project completion. A preliminary staffing plan based upon SANBAG's preliminary schedule should be included. Discussion topics for consideration may include:

- Key project issues, constraints, and critical path items.
- Narrative discussing team organization, coordination, and information flow in reference to the proposed organizational chart.
- Technical and proactive approaches to key services.
- Unique team experience applicable to the proposed Scope of Services.
- Flexibility of proposed roles and responsibilities.
- Quality Assurance and Control.
- Project management, control capabilities, and procedures.

- Plan reviews and response procedures.
- Concurrent assignment of proposed key CONSULTANT and sub CONSULTANT personnel on other projects.

Where the Scope of Services does not adequately define the tasks required to provide complete professional services, provide descriptions of recommended additional services and programs.

#### D. Local Presence

CONSULTANT and each sub CONSULTANT proposing to perform services from their San Bernardino County Office must provide the following information:

- Provide the name of office principal and title, CONSULTANT's name, address, telephone number, and fax number.
- The date office was established in San Bernardino County.
- Provide the number of full time employees working out of the San Bernardino County office by Form SF330 List of Disciplines (Function Codes).
- Approximate percentage of work performed on projects within San Bernardino County.
- Representative projects completed within San Bernardino County, date completed, and approximate billings.
- Number of senior management and regular employees working full time out of the San Bernardino County Office.
- Names of personnel proposed to be engaged on the contracted services and their county of residence (informational purposes only).

#### E. Contract Comments:

Provide a written discussion of any objections or concerns relative to the Terms and Conditions of SANBAG's contract. Please note that SANBAG reserves the right to disqualify any CONSULTANT that does not provide a complete written discussion of its contractual objections or to disqualify any CONSULTANT based on objections that SANBAG considers non-negotiable. SANBAG does not anticipate making substantive changes to its Terms and Conditions.

#### F. Entire Statement of Qualifications:

The CONSULTANT's SOQ package is limited to 40 (8 1/2" x 11") pages single-sided. Charts, exhibits, and schedules may be included in 11" x 17" page format and shall be folded to fit into an 8 1/2" x 11" sheet. The first five (5) of these sheets will count as one (1) page. Additional sheets will be counted as two (2) pages. The page limit does not include the outside cover, section dividers, cover letters and sub CONSULTANT commitment memorandum, contract comments, or duplication of the organizational chart. SOQs that do not contain the required information or do not contain the required number of copies (eight copies) will not be accepted.



G. Changes:

During the selection process, any changes in key CONSULTANT or sub CONSULTANT personnel proposed in the SOQ must be brought to the attention of SANBAG immediately.

**VIII. CONSULTANT SELECTION**

The primary objective of SANBAG is to select highly qualified CONSULTANTS to perform necessary professional services for SANBAG at a fair and reasonable cost. CONSULTANTS may obtain a copy of the CONSULTANT selection policy by accessing the SANBAG website. In addition, SANBAG has established the following criteria for the selection process:

- A. The selection process shall be fair, open, and competitive.
- B. The selection of the CONSULTANT firms will be based on clearly stated objectives.
- C. Selection of private CONSULTANT's/firms shall be based upon demonstrated competence, professional qualifications, experience, and capabilities to perform the required services at a fair and reasonable price to SANBAG, rather than competitive bidding process.
- D. Upon review of the SOQs, a shortlist of CONSULTANTS will be invited to prepare for an interview. The pending contract will be awarded to the responsible, responsive firm best conforming to the RFQ, and is in the opinion of SANBAG, most advantageous to SANBAG. SANBAG reserves the right to reject any and all SOQs and to negotiate with any responsible, responsive firm. SANBAG is under no obligation to issue contracts for the subject services.

**IX. NEGOTIATIONS AND ENGAGEMENT**

Following the selection of a CONSULTANT, the selected firm will submit a cost proposal and participate in contract negotiations with SANBAG staff.

The final contract and Scope of Services will be negotiated. CONSULTANT's are encouraged to include in their SOQ any comments relating to the Scope of Services and/or the terms and conditions of SANBAG's standard contract. In addition, CONSULTANT's are reminded that *any* comments regarding the Terms and Conditions of SANBAG's standard contract must be noted in the SOQ. SANBAG reserves the right to disqualify any firm that does not provide written discussions of any disagreements it has relative to SANBAG's Terms and Conditions. SANBAG does not anticipate making any substantive changes to its Terms and Conditions.

**X. CONFLICT OF INTEREST**

The selected CONSULTANT will not be prevented from participating in future projects to the extent that no direct conflict of interest exists at the time. CONSULTANTS responsible for a project's design may not participate in construction management/construction inspection of the project. The determination of a conflict of interest, direct or incidental, shall be at the sole discretion of SANBAG.

## **XI. SCHEDULE FOR CONSULTANT SELECTION**

Issue Request for Qualifications	30 May 2007
Statement of Qualifications Due	27 June 2007
Shortlist and Notify CONSULTANT's (Anticipated)	03 July 2007
Interview Shortlisted CONSULTANT's (Anticipated)	24 July 2007
Select CONSULTANT (Anticipated)	24 July 2007
Contract Cost Proposal Due (Anticipated)	01 Aug 2007
Major Projects Committee Approval	09 Aug 2007
SANBAG Board Approval (estimated)	05 Sep 2007
Notice to Proceed (estimated)	05 Sep 2007

Dates are subject to change. Schedule updates will be posted on SANBAG's internet website: [www.sanbag.ca.gov](http://www.sanbag.ca.gov) under "Latest RFP/RFQ Postings."

### **Contact List:**

Appointment/Document Requests:	Deanne Oberdank or Christine Coleman	(909) 884-8276
Questions/Comments:	Lisa DaSilva	(909) 884-8276

**CONTRACT NO: C08002**

**EFFECTIVE DATE: [BOARD APPROVAL DATE]**

**by and between**

**San Bernardino  
County Transportation Authority**

**and**

**[CONSULTANT]**

**for**

**Design Engineering Services**

**I-10 Westbound Lane Addition Project**

## TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>PAGE</u>
CONTRACT MANAGEMENT.....	<b>Error! Bookmark not defined.</b>
Article 1 Description of Services .....	1
Article 2 Performance Schedule and Force Majeure .....	1
Article 3 Contract Price and Cost Principles .....	2
Article 4 Availability of Funds .....	3
Article 5 Taxes, Duties, Fees .....	3
Article 6 Invoicing and Payments.....	3
Article 7 Documentation and Right of Audit.....	4
Article 8 Responsibility of the Engineer.....	5
Article 9 Reporting Requirements/Deliverables .....	5
Article 10 Permits and Licenses.....	5
Article 11 Technical Direction.....	6
Article 12 Changes.....	7
Article 13 Federal and State Mandatory Provisions .....	8
Article 14 Conflict of Interest .....	10
Article 15 Key Personnel .....	10
Article 16 Representations .....	10
Article 17 Proprietary Rights/Confidentiality.....	10
Article 18 Terminations .....	12
Article 19 Stop Work Orders .....	13
Article 20 Claims .....	13
Article 21 Insurance .....	14
Article 22 Indemnity .....	15
Article 23 Damages due to Errors and Omissions .....	15
Article 24 Ownership of Drawings and Data.....	16
Article 25 Subcontracts .....	16
Article 26 Inspection and Access.....	16
Article 27 Independent Contractor.....	17
Article 28 Precedence .....	17
Article 29 Communications and Notices .....	17
Article 30 Disputes.....	18
Article 31 Gratuities.....	18
Article 32 Review and Acceptance.....	19
Article 33 Safety .....	19
Article 34 Assignment .....	19
Article 35 Amendments .....	20
Article 36 Governing Law and Venue .....	20
Article 37 Suspension of Services .....	20
Article 38 Contingent Fee .....	21
Article 39 Location of Performance.....	21
Article 40 Entire Document .....	21
Article 41 Attorney's Fees .....	22

**CONTRACT**  
**FOR**  
**DESIGN ENGINEERING SERVICES**

This Contract, entered into this [DATE] day of [MONTH] 2007, by the firm of [CONSULTANT] (hereinafter called CONSULTANT) whose address is:

**[CONSULTANT ADDRESS]**

and San Bernardino County Transportation Authority (hereinafter called AUTHORITY) whose address is:

**1170 W. 3<sup>rd</sup> Street, 2<sup>nd</sup> Floor  
San Bernardino, CA 92410-1715**

Whereas, AUTHORITY desires CONSULTANT to perform certain technical Services as hereinafter described and CONSULTANT desires to do so for the compensation and in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereto agree as follows:

**Article 1      Description of Services**

CONSULTANT agrees to perform Services set forth in Attachment "A", Scope of Services, which is incorporated herein by reference, in accordance with high professional engineering services which are generally accepted in the State of California, in accordance with the terms and conditions expressed herein and in the sequence, time, and manner defined therein. The word "Services," as used herein, includes without limitation, the performance, fulfillment and discharge by CONSULTANT of all obligations, duties, tasks, and services imposed upon or assumed by CONSULTANT hereunder; and the Services performed hereunder shall be completed to the satisfaction of AUTHORITY, with their satisfaction being based on prevailing professional engineering and environmental services standards.

**Article 2      Performance Schedule and Force Majeure**

2.1      The Period of Performance by CONSULTANT under this Contract shall commence on [CONTRACT DATE] and shall continue in effect for thirty (30) months, until work is completed, or otherwise terminated, cancelled or extended as hereinafter provided.

### **Article 3      Contract Price and Cost Principles**

- 3.1 Full compensation to CONSULTANT for full and complete performance of all Services, compliance with all the terms and conditions of this Contract, payment by CONSULTANT of all obligations incurred in, or application to, CONSULTANT's performance of Services, and for which CONSULTANT shall furnish all personnel, facilities, equipment, materials, supplies, and Services (except as may be explicitly set forth in this Contract as furnished by AUTHORITY), shall not exceed the amounts set forth in 3.2 below.
- 3.2 The total cost for Services to the project shall not exceed [CONTRACT AMOUNT]. This amount does not include a contingency. Services to be provided under terms of this Contract are to be provided on an as needed basis and compensated for as set forth in Attachment "B" which is incorporated herein by reference. Utilization of the contingency is not permitted unless directed in writing by AUTHORITY Project Manager. CONSULTANT's fee for services is included in the total estimated contract cost and shall be a fixed percentage fee, as agreed upon, and noted in Attachment "B".
- 3.3 CONSULTANT's overhead rates will be fixed, as set forth in Attachment "B" for the duration of this Contract. The fixed overhead rate will not be subject to adjustment. Any percentage increase over the direct labor rate in Attachment "B" is not permitted without prior authorization from AUTHORITY.
- 3.4 Not used.
- 3.5 The cost principles set forth in Part 31, Contract Cost Principles and Procedures, in Title 48, Federal Acquisition Regulations System of the Code of Federal Regulations (CFR) as constituted on the effective date of this Contract shall be utilized to determine allowableness of costs under this Contract and may be modified from time to time by amendment of the Contract.
  - 3.5.1 The CONSULTANT agrees to comply with Federal Department of Transportation procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.
  - 3.5.2 Any costs for which payment has been made to CONSULTANT that are determined by subsequent audit to be unallowable under 48 CFR, Part 31, Contract Cost Principles and Procedures, or 49 CFR, Part 18, Uniform Administrative Requirements for Grants

and Cooperative Agreements to State and Local Governments shall be repaid by CONSULTANT to AUTHORITY.

3.5.3 Any subcontract, entered into as a result of this Contract shall contain all of the provisions of this Section 3.5.

3.6 Any Services provided by the CONSULTANT not specifically covered by the Scope of Services (Attachment "A") shall not be compensated without prior written authorization from AUTHORITY. It shall be CONSULTANT's responsibility to recognize and notify AUTHORITY when services not covered by the Scope of Services have been requested or are required. All changes and/or modifications to the Scope of Services shall be made in accordance with Article 12, Changes.

#### **Article 4 Availability of Funds**

This Contract is awarded on the contingency of availability of funds. The obligation of AUTHORITY is conditioned upon the availability of funds that are allocated and available for the payment of such an obligation. If funds are not allocated and available for the continuance of Services performed by CONSULTANT, Services directly or indirectly involved may be suspended or terminated by AUTHORITY at the end of the period for which funds are available. When AUTHORITY becomes aware that any portion of Services that will or may be affected by a shortage of funds, it will immediately so notify CONSULTANT. Nothing herein shall relieve AUTHORITY from its obligation to compensate CONSULTANT for Services actually performed pursuant to this Contract prior to such notification. No penalty shall accrue to AUTHORITY in the event this provision is exercised.

#### **Article 5 Taxes, Duties, Fees**

CONSULTANT shall pay when due, and the compensations set forth in Article 3, Contract Price and Cost Principles, shall be inclusive of all; a) local, municipal, state, and federal sales and use taxes, b) excise taxes, c) taxes on personal property owned by CONSULTANT, and d) all other governmental fees and taxes or charges of whatever nature applicable to CONSULTANT to enable it to conduct business.

#### **Article 6 Invoicing and Payments**

6.1 The compensation of CONSULTANT as provided herein shall be payable in 4 week billing period payments, forty-five (45) calendar days after receipt by AUTHORITY of an invoice prepared in accordance with instructions below. Payment shall not be construed to be an acceptance of Services.

- 6.2 CONSULTANT shall prepare all invoices in a form satisfactory to and approved by AUTHORITY and it shall be accompanied by documentation supporting each element of measurement and/or cost. Each invoice will be for a 4 week billing period and will be marked with AUTHORITY's project name, contract number, and task order number. CONSULTANT and AUTHORITY's Project Manager shall mutually agree on a cutoff date for invoices. The cutoff date for CONSULTANT's invoices shall be consistent from each period. Invoices shall be submitted within fifteen (15) calendar days after the cutoff date for the period covered by the invoice. Invoices shall include request for payment for Services (including additional Services authorized by AUTHORITY) completed by CONSULTANT during each billing period. Any invoice submitted which fails to comply with the terms of this Contract, including the requirements of form and documentation, may be returned to CONSULTANT. Any costs incurred by CONSULTANT in connection with the resubmission of a proper invoice shall be at CONSULTANT's sole expense.
- 6.3 CONSULTANT shall furnish evidence, satisfactory to AUTHORITY, that all labor and materials furnished and equipment used during the period covered by the invoice have been incurred. AUTHORITY shall not be obligated to make payments to CONSULTANT until CONSULTANT furnishes such evidence. Upon furnishing such evidence, satisfactory to AUTHORITY, AUTHORITY shall pay CONSULTANT the full amount of the invoice less disputed amounts.
- 6.4 CONSULTANT shall include a statement and release with each invoice, satisfactory to AUTHORITY, that CONSULTANT has fully performed the Services invoiced pursuant to this Contract for the period covered, and that all claims of CONSULTANT and its subcontractors for Services during the period will be satisfied upon the making of such payment. AUTHORITY shall not be obligated to make payments to CONSULTANT until CONSULTANT furnishes such statement and release.
- 6.5 CONSULTANT shall forfeit the fixed fee portion of the progress payment for any billing period that CONSULTANT fails to submit an invoice within sixty (60) calendar days after the cutoff date for the billing period.
- 6.6 CONSULTANT shall forfeit all costs incurred for a progress payment for any billing period that CONSULTANT fails to submit an invoice within one-hundred twenty (120) calendar days after the cutoff date for the billing period.

## **Article 7      Documentation and Right of Audit**

CONSULTANT shall keep and maintain all books, papers, records, accounting



records including but not limited to all direct and indirect costs allocated to Services, files, accounts, reports, cost proposals with backup data, and all other material relating to Services. CONSULTANT shall upon request, make all such materials available to AUTHORITY or its designee at any reasonable time during the term of the Contract and for three (3) years from the date of final payment to CONSULTANT, for auditing, inspection and copying. CONSULTANT shall insert in each of its subcontracts the above requirement.

## **Article 8      Responsibility of the Engineer**

- 8.1      The CONSULTANT shall be responsible for the professional quality, technical accuracy, and the coordination of all calculations, drawings, notes and other Services furnished by the CONSULTANT under terms of this Contract.
- 8.2      In addition to any other requirements of this Contract or duties and obligations imposed on CONSULTANT by law, the CONSULTANT shall, as an integral part of its Services, employ quality control procedures that identify potential risks and uncertainties related to construction of the project and the Services performed by CONSULTANT within the areas of CONSULTANT Services and expertise. Risks that may be encountered include, but are not limited to, soil conditions, constructability, factors of safety, impact on adjacent properties, public safety, and environmental considerations. At any time during performance of the contracted Scope of Services, should the CONSULTANT observe, encounter, or identify any unusual circumstances or uncertainties which could pose potential risk and uncertainties, CONSULTANT shall immediately document such matters and notify AUTHORITY of said circumstances and related concerns. CONSULTANT shall also similarly notify AUTHORITY in regard to the possibility of any natural catastrophe, potential failure, or any situation that exceeds design assumptions and could precipitate a failure. Notifications under this paragraph shall be specific, clear and timely, and in a form which will enable AUTHORITY to understand and evaluate the magnitude and effect of the risk and uncertainties involved.

## **Article 9      Reporting Requirements/Deliverables**

All Reports and deliverables shall be submitted in accordance with Attachment "A", Scope of Services.

## **Article 10      Permits and Licenses**

CONSULTANT shall (without additional compensation) keep current all governmental permits, certificates and licenses (including professional licenses) necessary for CONSULTANT to perform Services.

## **Article 11      Technical Direction**

- 11.1 Performance of Services under this Contract shall be subject to the technical direction of the AUTHORITY Contract Manager, or his designee, as identified in Attachment "A", Scope of Services, attached to this Contract. The AUTHORITY Contract Manager will identify his designee, in writing to CONSULTANT, with the notice to proceed and subsequently with any changes during the Contract period. The term "Technical Direction" is defined to include, without limitation:
  - 11.1.1 Directions to the CONSULTANT which redirect the Contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details or otherwise serve to accomplish the contractual Scope of Services.
  - 11.1.2 Provision of written information to the CONSULTANT which assists in the interpretation of drawings, reports, or technical portions of Service description.
  - 11.1.3 Review and, where required by the Contract, approval of technical reports, drawings, specifications and technical information to be delivered by the CONSULTANT to AUTHORITY or Caltrans under the Contract.
- 11.2 Technical direction must be within the Scope of Services in the Contract. The AUTHORITY Contract Manager or designee does not have the authority to, and may not, issue any technical direction which:
  - 11.2.1 Constitutes an assignment of additional Services outside the Scope of Services;
  - 11.2.2 Constitutes a change as defined in the Contract clause entitled "Changes";
  - 11.2.3 In any manner causes an increase or decrease in the Contract's estimated cost or price or the time required for Contract performance;
  - 11.2.4 Changes any of the expressed terms, conditions or specifications of the Contract; or
  - 11.2.5 Interferes with the CONSULTANT's right to perform the terms and conditions of the Contract.

- 11.2.6 A failure of the CONSULTANT and AUTHORITY Contract Manager to agree that the technical direction is within the scope of the Contract, or a failure to agree upon the Contract action to be taken with respect thereto shall be subject to the provisions of Article 30, Disputes.
- 11.3 All technical directions shall be issued in writing by the AUTHORITY Contract Manager or his designee.
- 11.4 The CONSULTANT shall proceed promptly with the performance of technical directions duly issued by the AUTHORITY Contract Manager or his designee, in the manner prescribed by this article and within his authority under the provisions of this clause. If, in the opinion of the CONSULTANT, any instruction or direction by the AUTHORITY Contract Manager or his designee, falls within one of the categories defined in 11.2.1 through 11.2.5 above, the CONSULTANT shall not proceed but shall notify the Contract Manager in writing within five (5) working days after receipt of any such instruction or direction and shall request the Contract Manager to modify the Contract accordingly. Upon receiving the notification from the CONSULTANT, the Contract Manager shall:
- 11.4.1 Advise the CONSULTANT in writing within thirty (30) days after receipt of the CONSULTANT's letter that the technical direction is or is not within the scope of Article 12, Changes;
- 11.4.2 Advise the CONSULTANT within a reasonable time that AUTHORITY will or will not issue a written change order.

## **Article 12 Changes**

- 12.1 The Services shall be subject to changes by additions, deletions, or revisions thereto by AUTHORITY. CONSULTANT will be advised of any such changes by written notification from AUTHORITY describing the change.
- 12.2 Promptly after such written notification of change is given to CONSULTANT by AUTHORITY, CONSULTANT and AUTHORITY will attempt to negotiate a mutually agreeable change in compensation or time of performance and amend the Contract accordingly. If CONSULTANT and AUTHORITY are unable to agree on the compensation change, the CONSULTANT may make a claim per Article 20, Claims. CONSULTANT shall have no obligation to perform the changes, and shall not be entitled to compensation for Services performed on such changes, prior to the execution of the change order relating to the changes required by AUTHORITY.

- 12.3 CONSULTANT shall not suspend performance of this Contract during the negotiation of any change order, except as may be directed by AUTHORITY. CONSULTANT shall perform all changes in accordance with all the terms of this Contract.

## **Article 13 Federal and State Mandatory Provisions**

### **13.1 Equal Employment Opportunity/Nondiscrimination**

- 13.1.1 In connection with the execution of this Contract, the CONSULTANT shall not discriminate directly or indirectly against any employee or applicant for employment because of race, color, religion, sex, age, or national origin. The CONSULTANT shall take action to insure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, age, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selections of training, including apprenticeship. The CONSULTANT agrees to post in conspicuous places available to employees and applicants for employment notices setting forth the provisions of the Equal Opportunity clause.
- 13.1.2 The CONSULTANT shall, in all solicitations or advertisements for employees placed by or on behalf of the CONSULTANT, state that all qualified applications shall receive consideration for employment without regard to race, color, religion, sex, age, or national origin.
- 13.1.3 The CONSULTANT shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other Contract or understanding, a notice advising the labor union or workers representative of the CONSULTANT's commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 13.1.4 The CONSULTANT shall comply with all provisions of Executive Order No 11246 as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR, Part 60), and shall permit access to its books, records, and accounts by AUTHORITY and the

Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

13.1.5 In the event of the CONSULTANT's noncompliance with the Equal Opportunity clause of this Contract or any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended, in whole or in part, and the CONSULTANT may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order No. 11246 as amended by Executive Order 11375, and as supplemented in Department of Labor Regulations (41 CFR, Part 60).

13.1.6 The CONSULTANT shall include the provisions of paragraphs (13.1.1) through (13.1.6) of this Article in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR, Part 60), so that such provisions will be binding upon each subcontract or vendor. The CONSULTANT shall take such action with respect to any subcontract or purchase order as AUTHORITY may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event the CONSULTANT becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by AUTHORITY, the CONSULTANT may request AUTHORITY to enter into such litigation to protect the interests of AUTHORITY.

## 13.2 Handicapped Workers

13.2.1 The CONSULTANT will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The CONSULTANT agrees to take action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

#### **Article 14      Conflict of Interest**

- 14.1    The CONSULTANT agrees that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of Services required to be performed under this Contract. The CONSULTANT further agrees that in the performance of this Contract, no person having any such interest shall be employed.
- 14.2    No portion of the funds received by the CONSULTANT under this Contract shall be used for political activity or to further the election or defeat of any candidate for public office.

#### **Article 15      Key Personnel**

- 15.1    The personnel specified in 15.2 below are considered to be essential to Services being performed hereunder. Prior to diverting any of the specified individuals to other projects, or reallocation of tasks and hours of Services that are the responsibility of key personnel to other personnel, the CONSULTANT shall notify AUTHORITY reasonably in advance and shall submit justifications (including proposed substitutions) in sufficient detail to permit evaluation of the impact on the project. Diversion or reallocation of key personnel shall be subject to written approval by AUTHORITY. AUTHORITY also reserves the right to approve proposed substitutions for key personnel.
- 15.2    Key Personnel are:

[ENTER KEY PERSONNEL HERE]

#### **Article 16      Representations**

CONSULTANT agrees with AUTHORITY that Services supplied by CONSULTANT in performance of this Contract shall be supplied by personnel who are careful, skilled, experienced and competent in their respective trades or professions. CONSULTANT agrees that it is supplying professional Services, findings, and/or recommendations in the performance of this Contract and agrees with AUTHORITY that the same shall conform to high professional engineering and environmental principles and standards that are generally accepted in the State of California.

#### **Article 17      Proprietary Rights/Confidentiality**

- 17.1    If, as a part of the Contract, CONSULTANT is required to produce materials, documents, data or information (“Products”), then CONSULTANT, if requested by AUTHORITY, shall deliver to

AUTHORITY the original of all such Products which shall become the property of AUTHORITY.

- 17.2 All materials, documents, data or information obtained from AUTHORITY's data files or any AUTHORITY medium furnished to CONSULTANT in the performance of this Contract will at all times remain the property of AUTHORITY. Such data or information may not be used or copied for direct or indirect use outside of these services by CONSULTANT without the express written consent of AUTHORITY.
- 17.3 Except as reasonably necessary for the performance of Services, CONSULTANT and its employees and agents shall hold in confidence the materials and information referred to in this Article 17, Proprietary Rights/Confidentiality, which are produced by CONSULTANT for AUTHORITY in the performance and completion of CONSULTANT's Services under the Contract, until released in writing by AUTHORITY, except to the extent such materials and information become a part of public domain information through no fault of CONSULTANT, or its employees or agents.
- 17.4 CONSULTANT shall not use AUTHORITY's name or photographs of the Project in any professional publication, magazine, trade paper, newspaper, seminar or other medium without first receiving the express written consent of AUTHORITY.
- 17.5 All press releases relating to the Project or this Contract, including graphic display information to be published in newspapers, magazines, and other publications, are to be made only by AUTHORITY unless otherwise agreed to by CONSULTANT and AUTHORITY.
- 17.6 CONSULTANT agrees that it, and its employees, agents, and subcontractors will hold confidential and not divulge to third parties without the prior written consent of AUTHORITY, any information obtained by CONSULTANT from or through AUTHORITY in connection with CONSULTANT's performance of this Contract, unless (a) the information was known to CONSULTANT prior to obtaining same from AUTHORITY pursuant to a prior Contract; or (b) the information was at the time of disclosure to CONSULTANT, or thereafter becomes part of the public domain, but not as a result of the fault or an unauthorized disclosure of CONSULTANT or its employees, agents, or subcontractors, or (c) the information was obtained by CONSULTANT from a third party who did not receive the same, directly or indirectly, from AUTHORITY and who had, to CONSULTANT's knowledge and belief, the right to disclose the same.

## Article 18 Terminations

- 18.1 Termination for Convenience. AUTHORITY shall have the right at any time, with or without cause, to terminate further performance of Services by written notice to CONSULTANT specifying the date of termination. On the date of such termination stated in said notice, CONSULTANT shall discontinue performance of Services and shall preserve work in progress and completed work ("Work"), pending AUTHORITY'S instruction, and shall turn over such Work in accordance with AUTHORITY's instructions.
- 18.1.1 CONSULTANT shall deliver to AUTHORITY, in accordance with AUTHORITY'S instructions, all Products prepared by CONSULTANT or its subcontracts or furnished to CONSULTANT by AUTHORITY. Upon such delivery, CONSULTANT may then invoice AUTHORITY for payment in accordance with the terms hereof.
- 18.1.2 If CONSULTANT has fully and completely performed all obligations under this Contract up to the date of termination, CONSULTANT shall be entitled to receive from AUTHORITY as complete and full settlement for such termination a pro rata share of the Contract cost and a pro rata share of any fixed fee, for such Services satisfactorily executed to the date of termination.
- 18.1.3 CONSULTANT shall be entitled to receive the actual cost incurred by CONSULTANT to return CONSULTANT's field tools and equipment, if any, to it or its suppliers' premises, or to turn over Work and Products in accordance with AUTHORITY's instructions plus the actual cost necessarily incurred in effecting the termination.
- 18.2 Termination for Cause. In the event CONSULTANT shall file a petition in bankruptcy, or shall make a general assignment for the benefit of its creditors, or if a petition in bankruptcy shall be filed against CONSULTANT or a receiver shall be appointed on account of its solvency, or if CONSULTANT shall default in the performance of any express obligation to be performed by it under this Contract and shall fail to immediately correct (or if immediate correction is not possible, shall fail to commence and diligently continue action to correct) such default within ten (10) calendar days following written notice thereof, AUTHORITY may, without prejudice to any other rights or remedies AUTHORITY may have, (a) hold in abeyance further payments to CONSULTANT; (b) stop any Services of CONSULTANT or its subcontractors related to such failure until such failure is remedied; and/or



(c) terminate this Contract by written notice to CONSULTANT specifying the date of termination. In the event of such termination by AUTHORITY, AUTHORITY may take possession of the Products and finish Services by whatever method AUTHORITY may deem expedient. A waiver by AUTHORITY of one default of CONSULTANT shall not be considered to be a waiver of any subsequent default of CONSULTANT, nor be deemed to waive, amend, or modify any term of this Contract.

18.2.1 In the event of termination CONSULTANT shall deliver to AUTHORITY all finished and unfinished Products prepared by CONSULTANT or its subcontractors or furnished to CONSULTANT by AUTHORITY.

18.3 All claims for compensation or reimbursement of costs under any of the foregoing provisions shall be supported by documentation submitted to AUTHORITY, satisfactory in form and content to AUTHORITY and verified by AUTHORITY. In no event shall CONSULTANT be entitled to any prospective profits or any damages because of such termination.

## **Article 19 Stop Work Orders**

Upon failure of CONSULTANT or its subcontractors to comply with any of the requirements of this Contract, AUTHORITY shall have the authority to stop any Services of CONSULTANT or its subcontractors affected by such failure until such failure is remedied or to terminate this Contract in accordance with Article 18, Termination. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for increased costs or damages by CONSULTANT.

## **Article 20 Claims**

CONSULTANT shall give AUTHORITY written notice within seven (7) days after the happening of any event which CONSULTANT believes may give rise to a claim by CONSULTANT for an increase in the Contract amount or in the scheduled time for performance. Within fourteen (14) days after the happening of such events, CONSULTANT shall supply AUTHORITY with a statement supporting CONSULTANT's claim, which statement shall include CONSULTANT's detailed estimate of the change in Contract amount and scheduled time occasioned thereby. AUTHORITY shall not be liable for, and CONSULTANT hereby waives, any claim or potential claim of CONSULTANT of which CONSULTANT knew or should have known and which was not reported by CONSULTANT in accordance with the provisions of this Article. CONSULTANT agrees to continue performance of Services during the time any claim of CONSULTANT hereunder is pending. AUTHORITY shall not be bound to any adjustments in the Contract amount or scheduled time for CONSULTANT's claim unless expressly agreed to by AUTHORITY in writing.

and any such adjustments in the Contract amount so agreed to in writing shall be paid to CONSULTANT by AUTHORITY. No claim hereunder by CONSULTANT shall be allowed if asserted after final payments under this Contract.

## **Article 21 Insurance**

In order to accomplish the indemnification herein provided for, but without limiting the indemnification, CONSULTANT shall secure and maintain throughout the term of the Contract the following types of insurance with limits as shown:

- 21.1 Professional Liability Insurance coverage in an amount not less than \$1,000,000, per claim and in the aggregate. CONSULTANT shall secure and maintain this insurance throughout the term of this Contract and for a minimum of three (3) years after completion and acceptance of Services by AUTHORITY.
- 21.2 Workers' Compensation Insurance or state-approved self-insurance program in an amount and form to meet all applicable requirements of the Labor Code of the State of California, including Employers Liability with \$250,000 limits, covering all persons providing Services on behalf of CONSULTANT.
- 21.3 Comprehensive General Liability Insurance or Commercial General Liability Insurance, including coverage for Premises and Operations, Contractual Liability, Personal Injury Liability, Broad-Form Property Damage and Independent Contractors' Liability, in an amount of not less than \$1,000,000 per occurrence, combined single limit, and \$3,000,000 in the aggregate written on an occurrence form.  
  
For products and completed operations a \$2,000,000.00 aggregate shall be provided.
- 21.4 Comprehensive Automobile Liability Coverage, including owned, non-owned and hired automobiles, in an amount of not less than \$1,000,000 per occurrence, combined single limit, and in the aggregate written on an occurrence form.
- 21.5 Proof of Coverage. CONSULTANT shall immediately furnish certificates of insurance to AUTHORITY evidencing the insurance coverage required above, prior to the commencement of performance of Services hereunder, and such certificates shall include San Bernardino Associated Governments/San Bernardino County Transportation Authority and Fluor Corporation (project administration consultant) as additional insured on Comprehensive General Liability Insurance or Commercial General

Liability Insurance and auto insurance. The certificates shall provide that such insurance shall not be terminated without thirty (30) days written notice to AUTHORITY, and CONSULTANT shall maintain such insurance from the time CONSULTANT commences performance of Services hereunder until the completion of such Services.

## **Article 22 Indemnity**

CONSULTANT agrees to indemnify, hold harmless, and defend, with counsel approved by AUTHORITY, AUTHORITY, and their officers, employees (past and present), agents, and representatives including Fluor Corporation, from and against:

- 22.1 Any claim, cause of action, liability, loss, cost or expense arising from infringement or improper appropriation or use by AUTHORITY of trade secrets, proprietary information, know-how, copyright rights or inventions, arising out of the use of methods, processes, designs, information, or other items furnished or communicated to AUTHORITY by CONSULTANT in connection with performance of Services; and
- 22.2 Any claim, cause of action, liability, loss, cost or expense, on account of injury to or death of persons or damage to or loss of property which arises out of or is alleged to arise out of the negligence or wrongful acts of CONSULTANT or its subcontractors, employees, or agents, in the performance of Services, and includes any and all expenses, including attorneys' fees, incurred by AUTHORITY for legal action to enforce CONSULTANT's indemnification obligations hereunder.

## **Article 23 Damages due to Errors and Omissions**

- 23.1 Architect-Engineer Consultants shall be responsible for the professional quality, technical accuracy, and coordination of all services required under this Agreement. A CONSULTANT may be liable for AUTHORITY costs resulting from errors or deficiencies in designs furnished under its Agreement.
- 23.2 When a modification to a construction contract is required because of an error or deficiency in the services provided under this A&E Agreement, the contracting officer (with the advice of technical personnel and legal counsel) shall consider the extent to which the A&E Consultant may be reasonably liable.
- 23.3 AUTHORITY's contracting officer shall enforce the liability and collect the amount due, if the recoverable cost will exceed the administrative cost involved or is otherwise in the AUTHORITY's interest. The contracting officer shall include in the Agreement file a written statement of the

reasons for the decision to recover or not to recover the costs from the CONSULTANT.

#### **Article 24      Ownership of Drawings and Data**

All drawings, specifications reports and other data developed by CONSULTANT under this Contract shall become the property of AUTHORITY when prepared, whether delivered to AUTHORITY or not.

#### **Article 25      Subcontracts**

- 25.1      CONSULTANT shall not subcontract performance of all or any portion of Services under this Contract, excepting to subcontractors listed in the CONSULTANT's proposal, without first notifying AUTHORITY of the intended subcontracting and obtaining AUTHORITY's Project Manager's approval in writing of the subcontracting and the subcontractor. The definition of subcontractor and the requirements for subcontractors hereunder shall include all lower-tier subcontracts.
- 25.2      CONSULTANT agrees that any and all subcontractors of CONSULTANT will comply with the terms of this Contract applicable to the portion of Services performed by them. If requested by AUTHORITY, CONSULTANT shall furnish AUTHORITY a copy of the proposed subcontract for AUTHORITY's approval of the terms and conditions thereof and shall not execute such subcontract until AUTHORITY has approved such terms and conditions. AUTHORITY approval shall not be unreasonably withheld.
- 25.3      Approval by AUTHORITY of any Services to be subcontracted and the subcontractor to perform said Services will not relieve CONSULTANT of any responsibility or liability in regard to the acceptable and complete performance of said Services.
- 25.4      Any substitution of subcontractors must be approved in writing by AUTHORITY's Contract Manager.

#### **Article 26      Inspection and Access**

AUTHORITY shall at all times have access during normal business hours to CONSULTANT's operations and products wherever they are in preparation or progress, and CONSULTANT shall provide sufficient, safe, and proper facilities for such access and inspection thereof. Inspection or lack of inspection by AUTHORITY, shall not be deemed to be a waiver of any of their rights to require CONSULTANT to comply with the Contract or to subsequently reject unsatisfactory Services or products.

## **Article 27     Independent Contractor**

CONSULTANT is and shall be at all times an independent contractor. Accordingly, all Services provided by CONSULTANT shall be done and performed by CONSULTANT under the sole supervision, direction and control of CONSULTANT. AUTHORITY shall rely on CONSULTANT for results only, and shall have no right at any time to direct or supervise CONSULTANT or CONSULTANT's employees in the performance of Services or as to the manner, means and methods by which Services are performed. All workers furnished by CONSULTANT pursuant to this Contract, and all representatives of CONSULTANT, shall be and remain the employees or agents of CONSULTANT or of CONSULTANT's subcontractor(s) at all times, and shall not at any time or for any purpose whatsoever be considered employees or agents of AUTHORITY.

## **Article 28     Precedence**

28.1     The Contract documents consist of these General Terms and Conditions and Attachment "A", Scope of Services, Attachment "B", Billing Rate Schedule, CONSULTANT's Statement of Qualifications and AUTHORITY's Request for Qualifications which are incorporated herein by reference.

28.2     The following order of precedence shall apply:

- 28.2.1     This Contract, its General Terms and Conditions, and Attachments
- 28.2.2     CONSULTANT's Statement of Qualifications
- 28.2.3     AUTHORITY's Request for Qualifications

28.3     In the event of an express conflict between the documents listed in Article 28.2, or between any other documents which are a part of the Contract, CONSULTANT shall notify AUTHORITY immediately and shall comply with AUTHORITY's resolution of the conflict.

## **Article 29     Communications and Notices**

29.1     Any and all notices permitted or required to be given hereunder shall be deemed duly given (a) upon actual delivery, if delivery is personally made; or (b) upon delivery into the United States Mail if delivery is by postage paid certified mail (return receipt requested), fax or private courier. Each such notice shall be sent to the respective party at the address indicated below or to any other address as the respective parties may designate from time to time by a notice given in accordance with this Article. A change in address may be made by notifying the other party in writing.

For CONSULTANT:

Name: [CONSULTANT]

Address: [ ]

Attn: [ ]

Phone: [ ]

Fax: [ ]

For AUTHORITY:

Name: San Bernardino Associated Governments

Address: 1170 W. 3<sup>rd</sup> Street, 2<sup>nd</sup> Floor

San Bernardino, CA 92410-1715

Attn: Mr. Darren Kettle

Phone: (909) 884-8276

Fax: (909) 885-4407

- 29.2 All communications pursuant to or in connection with this Contract shall be marked with AUTHORITY's Contract and job numbers.

### **Article 30 Disputes**

- 30.1 In the event any dispute arises between the parties hereto under or in connection with this Contract (including but not limited to disputes over payments, reimbursements, costs, expenses, Services to be performed, Scope of Services and/or time of performance), the dispute shall be decided by the Contract Manager of AUTHORITY or his duly authorized representative within thirty (30) calendar days after notice thereof in writing which shall include a particular statement of the grounds of the dispute. If CONSULTANT does not agree with the decision, then CONSULTANT shall have thirty (30) calendar days after receipt of the decision in which to file a written appeal thereto with the Executive Director of AUTHORITY. If the Executive Director fails to resolve the dispute in a manner acceptable to CONSULTANT, then such appeal shall be decided by a court of competent jurisdiction.

- 30.2 During resolution of the dispute, CONSULTANT shall proceed with performance of this Contract with due diligence.

### **Article 31 Gratuities**

CONSULTANT, its employees, agents, or representatives shall not offer or give to an officer, official, or employee of AUTHORITY or Fluor Corporation, gifts, entertainment, payments, loans, or other gratuities to influence the award of a Contract or obtain favorable treatment under a Contract.

## **Article 32      Review and Acceptance**

- 32.1 All Services performed by CONSULTANT shall be subject to periodic review and approval by the representatives of AUTHORITY at any and all places where such performance may be carried on. Failure of AUTHORITY to make such review, or to discover defective Work, shall not prejudice the rights of AUTHORITY at the time of final acceptance. All Services performed by CONSULTANT shall be subject to periodic and final review and acceptance by AUTHORITY upon completion of all Services.
- 32.2 When Services have been completed and the products have been delivered to AUTHORITY, CONSULTANT shall so advise AUTHORITY in writing. AUTHORITY acceptance shall be based on those provisions set forth in the Scope of Services, Attachment "A". Within thirty (30) working days of receipt of such notice, AUTHORITY shall give CONSULTANT written notice of final acceptance or any Services and Work that have yet to be completed or which are unsatisfactory.
- 32.3 In the event AUTHORITY does not accept Services or Products as submitted then upon their subsequent completion, CONSULTANT shall again so notify AUTHORITY, and within the above specified time period AUTHORITY shall give CONSULTANT written notice of final acceptance or notice that the specified unfinished Services or Products have not yet been completed or are still not satisfactory. In the latter instance, the foregoing procedures with respect to such specified unfinished Services or Products will be repeated. Final acceptance shall not constitute a waiver or abandonment of any rights or remedies available to AUTHORITY under this Contract or by law.

## **Article 33      Safety**

CONSULTANT shall comply strictly with all local, municipal, state, and federal safety and health laws, orders and regulations applicable to CONSULTANT's operations in the performance of Services hereunder.

## **Article 34      Assignment**

CONSULTANT shall not assign this Contract wholly or in Part, voluntarily, by operation of law, or otherwise without first obtaining the written consent of AUTHORITY. Subject to the foregoing, the provisions of this Contract shall extend to the benefit of and be binding upon the successors and assigns of the parties hereto.

## **Article 35      Amendments**

This Contract may only be changed by an amendment duly executed by CONSULTANT and AUTHORITY except, that changes to the Contract to implement administrative changes such as approved changes in key personnel may be made by administrative amendment signed by CONSULTANT and AUTHORITY's Contracts Manager or other duly authorized representative.

## **Article 36      Governing Law and Venue**

This Contract shall be subject to the laws and jurisdiction of the State of California. The parties acknowledge and agree that this Contract was entered into and intended to be performed in whole or substantial part in San Bernardino County, California. The parties agree that the venue for any action or claim brought by any party to this Contract will be the Central District of San Bernardino County. Each party hereby waives any law or rule of court that would allow them to request or demand a change of venue. If any action or claim concerning this Contract is brought by any third party, the parties hereto agree to use their best efforts to obtain a change of venue to the Central District of San Bernardino County.

## **Article 37      Suspension of Services**

37.1 AUTHORITY may at any time, and from time to time, by written Notice ("Suspension of Services Order") to CONSULTANT, suspend further performance of Services by CONSULTANT. Said Suspension of Services Order shall specify the date of suspension and the estimated duration of the suspension. Upon receiving any such Suspension of Services Order, CONSULTANT shall promptly suspend further performance of Services to the extent specified, and during the period of such suspension shall properly care for and protect all Services in progress. Such suspensions shall not exceed more than one hundred twenty (120) consecutive calendar days each, nor aggregate more than one hundred eighty (180) calendar days; and, if they do, CONSULTANT may, if it so elects by notifying AUTHORITY in writing, consider that this Contract has been terminated for convenience of AUTHORITY. If the Contract has not been so terminated by CONSULTANT, then AUTHORITY may at any time withdraw the Suspension of Services Order as to all or part of the suspended Services by written notice to CONSULTANT specifying the effective date and scope of withdrawal, and CONSULTANT shall resume diligent performance of Services for which the suspension is withdrawn on the specified effective date of withdrawal.

37.2 If CONSULTANT believes that any such suspension or withdrawal of suspension justifies modification of the Contract compensation, CONSULTANT may request additional compensation and



CONSULTANT and AUTHORITY will attempt to negotiate a mutually acceptable change in compensation and amend the Contract accordingly. If CONSULTANT and AUTHORITY are unable to agree on a change in compensation, CONSULTANT may request adjustments to either the Contract amount or the scheduled time for performance in accordance with Article 20, Claims herein. In no event shall CONSULTANT be entitled to any prospective profits or any damages because of such suspension.

#### **Article 38      Contingent Fee**

The CONSULTANT warrants, by execution of this Contract, that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the CONSULTANT for the purpose of securing business. For breach or violation of this warranty, AUTHORITY has the right to annul this Contract without liability, pay only for the value of Services actually performed, or in its discretion, to deduct from the Contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

#### **Article 39      Location of Performance**

- 39.1 This contract is awarded based upon CONSULTANT's agreement and statements contained in CONSULTANT's proposal/qualifications document, that a minimum of 50% by dollar value of the total value of this contract and all amendments, including Service performed by subconsultants, shall be physically performed in offices located within San Bernardino County.
- 39.2 CONSULTANT shall include a statement on each invoice as to the cumulative amount of all Service to date, by dollar value that has been performed in offices located in San Bernardino County. CONSULTANT project manager shall certify in writing that this percentage is correct to the best of his/her knowledge.
- 39.3 At completion of this contract should CONSULTANT have failed to achieve the percentage agreed upon in Article 38.1, then CONSULTANT shall forfeit the entire fixed fee. Actions taken under this article shall not limit or constitute a waiver or abandonment of any rights or remedies available to SANBAG under this contract or by law.

#### **Article 40      Entire Document**

- 40.1 This Contract and its attachments constitute the sole and only agreement governing Services and supersedes any prior understandings, written or oral, between the parties respecting the within subject matter. All previous proposals, offers, and other communications, written or oral, relative to this Contract, are superseded except to the extent that they have been incorporated into this Contract.
- 40.2 No agent, employee or representative of AUTHORITY has any authority to bind AUTHORITY to any affirmation, representation or warranty outside of, or in conflict with, the stated terms of this Contract, and CONSULTANT hereby stipulates that it has not relied, and will not rely, on same.
- 40.3 As this Contract was jointly prepared by both parties, the language in all parts of this Contract will be construed, in all cases, according to its fair meaning, and not for or against either party.

#### **Article 41 Attorney's Fees**

If any legal action is instituted to enforce or declare any party's rights hereunder, each party, including the prevailing party, must bear its own costs and attorneys' fees. This paragraph shall not apply to those costs and attorneys' fees directly arising from any third party legal action against a party hereto and payable under Article 22, Indemnity.

IN WITNESS WHEREOF, the parties hereto have executed this Contract on the day and year below written, but effective as of the day and year first set forth above.

**[CONSULTANT]**

**San Bernardino Associated Governments**

By: \_\_\_\_\_

By: \_\_\_\_\_

Dennis Hansberger, President  
SANBAG Board of Directors

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**APPROVED AS TO LEGAL FORM:**

By: \_\_\_\_\_

Jean-Rene Basle  
SANBAG Counsel

*Draft*  
*ATTACHMENT “A”*

**Scope of Services**

**By and between**

**San Bernardino County Transportation Authority**

**And**

**TBD**

**To**

**Provide Design Engineering Services**

**For**

**Interstate 10 (I-10) Westbound Lane Addition Project**

**Cities of Redlands and Yucaipa,  
San Bernardino County**

## INDEX

- A. DESCRIPTION OF SERVICES
  - Project Location and Description
- B. APPLICABLE STANDARDS
- C. SERVICES PERFORMED BY CONSULTANT
  - General Description of Services
  - Topographic Mapping
  - Surveys
  - Geotechnical Investigation and Materials
  - Utility Coordination
  - Roadway Design
  - Structure Design
  - Soundwalls
  - Retaining Walls
  - Drainage Design
  - Traffic Engineering
- D. FURNISHED MATERIALS
- E. ADMINISTRATION
  - SANBAG Project Management and Administration
  - CONSULTANT Project Management and Administration
  - Project Controls
  - Monthly Progress Reports
  - Quality Assurance
  - Reproduction Services
  - Submittal and Reviews

Table I – CMIA Milestone Schedule

A. **DESCRIPTION OF SERVICES**

The San Bernardino Associated Governments, acting as the San Bernardino County Transportation authority (SANBAG), in cooperation with the California Department of Transportation (CALTRANS), will utilize the services of CONSULTANTS to provide design engineering services as described below. The scope of services is for the development of the Plans, Specifications, and Estimates (PS&E) for the proposed addition of one (1) mixed flow lane on westbound Interstate 10 (I-10) between Ford St in the City of Redlands and Yucaipa Blvd in the City of Yucaipa.

Coordination of CONSULTANT, SANBAG, and CALTRANS will be accomplished through a Consultant Project Manager, SANBAG Contract Manager or his designee, and a CALTRANS Project Manager.

The SANBAG Contract Manager for this contract shall be:

Mr. Darren Kettle  
Director of Freeway Construction

CONSULTANT shall be required to perform all professional and technical engineering services necessary to prepare the PS&E. CONSULTANT shall also be required to make itself available during construction bidding procedures and the construction phase of the project to perform those duties requested of them by SANBAG, and with SANBAG approval, by CALTRANS.

**PROJECT LOCATION AND DESCRIPTION**

The project proposes to construct a mixed flow lane in the westbound direction of I-10 from Ford St in the city of Redlands and Live Oak Canyon in the city of Yucaipa. The total project length is 3.8 miles. The purpose of this project is to relieve traffic congestion currently experienced at and in the vicinity of the project area.

The PR/PSR consists of one build alternative which purposes to construct the lane in the median between the Ford St interchange and the Yucaipa Blvd interchange. From Yucaipa Blvd to west of Live Oak Canyon the lane will be constructed to the outside of the existing travel way. The project's main features are as follows:

- The addition of a standard 12' wide mixed flow lane and corresponding 10' shoulder.
- A special structure may be required to retain the hill side between Yucaipa Blvd and Wabash. The proposed project plans identify a 16 meter tall soil nail wall.
- Standard retaining walls where outside widening occurs.
- Tie back walls under the 16<sup>th</sup> St. Bridge and the Yucaipa Blvd. Bridge.
- Tie-ins to the existing on and off ramps at Yucaipa Blvd. No ramp improvements are included in the scope.
- A sound wall may be required.
- Modifications to existing drainage facilities/patterns to capture and convey flows.
- Development of an independent PS&E package for soundwalls on the bluff of Golden West Dr., Redlands. Soundwalls were constructed along this bluff in 2004. There is the potential additional walls will need to be constructed along this same bluff. Development of a PS&E

package for this additional work is part of this contract's scope.

It is anticipated that the draft PR/PSR will be approved prior to the start of the PS&E contract. Completion of this document is in the scope of another contract, but coordination with the consultant preparing this document may be required. The environmental document, a CEQA CE, the mandatory and advisory design exceptions, and the Geometric Approval Drawings (GADs) have been approved.

## B. **APPLICABLE STANDARDS**

All project deliverables and related material shall be prepared in accordance with current CALTRANS and Federal Highway Administration (FHWA) regulations, policies, procedures, manuals, and standards for *English* units.

- A. Roadway design shall be in accordance with the current edition of the CALTRANS Highway Design Manual, the English Highway Design Standards, Standards for English Plans, English Standard Specification, and the Traffic Design Manual.
- B. Basic design shall be in accordance with the existing draft PR/PSR, the PR/PSR once it is approved, and the Geometric Approval Drawings.
- C. Plans shall be prepared in conformance with the current editions of the CALTRANS Drafting and Plans Manual and the CALTRANS CADD Users Manual.
- D. Plans, specifications, and estimates shall be prepared in conformance with the current editions of the CALTRANS Plans, Specifications, and Estimates Guide.
- E. Structure plans, specifications, and calculations for non-standard retaining walls shall be in accordance with the current editions of the CALTRANS Division of Structures manuals.
- F. All surveys shall conform with the current CALTRANS Surveys Manual.
- G. All field laboratory testing for geotechnical investigations shall be performed and the Materials Report shall be prepared in conformance with current editions of the Guidelines for Geotechnical Design Reports.
- H. All phases of design improvements which impact existing or proposed underground utilities shall conform to CALTRANS Policy on High and Low Risk Underground Facilities within Highway Rights of Way.

Design of the Project shall be performed in accordance with State Standards and practices. Any exceptions to applicable design standards shall be approved by CALTRANS via the process outlined in CALTRANS Highway Design Manual and applicable memorandums and design bulletins published by CALTRANS.

## C. **SERVICES PERFORMED BY CONSULTANT**

CONSULTANT shall be responsible for the service outlined in this Scope of Services. CONSULTANT services shall conform to the standards, criteria, and requirements of this Scope of Services, and shall include all plans, specifications, estimates, reports and special provisions necessary to complete the project.

#### **General Description of Required Services**

- A. It is not the intent of the following paragraphs to relieve CONSULTANT of professional responsibilities during the performance of this Scope of Services. In all instances where CONSULTANT believes this Scope of Services has not identified requirements that may be pertinent to producing a complete PS&E, CONSULTANT shall promptly notify SANBAG's Contract Manager of CONSULTANT's opinions with evidence thereof.
- B. CONSULTANT shall provide a project approach or management plan that will define the basic schedule and work tasks.
- C. CONSULTANT shall prepare final plans, specifications, and estimates (PS&E) for construction of the project. All deliverables shall be in English, except where noted. CONSULTANT will utilize the preliminary engineering plans, drainage reports, geotechnical reports, and right of way requirements developed prior to this Scope of Services as the basis for the PS&E. Any changes proposed by CONSULTANT shall be brought to the attention of SANBAG.
- D. CONSULTANT shall carry out the instructions as received from SANBAG's Contract Manager, or his designee, and shall cooperate with CALTRANS, other agencies, and other consultants providing Services for the Project.
- E. CONSULTANT shall coordinate its services with other consultant(s) and CALTRANS in the development of the PS&E for related projects. Any problems or conflicts shall be brought to the immediate attention of SANBAG.
- F. CONSULTANT shall have sole responsibility for the accuracy and completeness of the reports, plans, specifications, estimates, and related material prepared by CONSULTANT for the project. CONSULTANT shall independently check and identify the engineer and checker for all such material prior to any submittal. The PS&E, reports, and documentation will be reviewed by CALTRANS, SANBAG, and/or SANBAG's designee for conformity to the PR/PSR, constructability, and overall project consistency. Reviews by CALTRANS, SANBAG, and/or SANBAG's designee will not include detailed review or check of the design of major components and related details, or the accuracy with which such designs are depicted on the plans. CONSULTANT shall not incorporate in the design, any materials or equipment of sole source origin without prior written approval of SANBAG and CALTRANS.
- G. The exhibits, studies, estimates, calculations, reports and other documents furnished under this Scope of Services shall be of a quality acceptable to SANBAG and CALTRANS. The criteria for acceptance shall be a product of neat appearance, well organized, technically and grammatically correct, checked, and having the maker and checker identified. The appearance, organization and content of the drawings shall be to CALTRANS standards.

- H. The CONSULTANT shall maintain a set of project files that are indexed in accordance with CALTRANS' Project Development Uniform File System and hand over all project files to SANBAG at completion of the project who will then forward said files to CALTRANS.
- I. SANBAG reserves the right to approve all project scope of services changes. Any changes resulting from the addition, deletion, or revisions to the Scope of Services will not be made without prior written approval from SANBAG. The CONSULTANT shall not be compensated for making any changes to the project Scope of Services other than those approved in writing by SANBAG.
- J. CONSULTANT shall not suspend performance of this contract during the negotiations of any change orders except as they may be directed by SANBAG. CONSULTANT shall perform all changes in accordance with the terms and conditions of this contract.
- K. At the completion of this Scope of Services all files and correspondence relating to the Project shall be turned over to SANBAG. This includes all working data, field data, and background information used in creating the deliverables listed in the Scope of Services.
- L. CONSULTANT shall obtain, at its expense, all applicable CALTRANS Manuals and Standard Plans.
- M. The title sheet for reports, each plan sheet, and calculations shall bear the professional seal, certificated number, registration classification, expiration date of the certificate, signature of the professional engineer, registered in the State of California, responsible for their preparation.
- N. CONSULTANT shall perform alternative engineering studies and designs, as needed and/or as directed by SANBAG's contract manager.
- O. CONSULTANT shall submit all final plans on CD ROM using MicroStation (.dgn) file format in accordance with CALTRANS standards. The electronic files shall include the engineer's electronic signature and seal. CONSULTANT shall verify the latest version of software used prior to submittal.
- P. As part of the services involved in the preparation of the plans, specifications, and estimates, CONSULTANT shall prepare and furnish Special Provisions for all items included in the plans which are not covered in the Standard Plans and Standard Specifications or required more detail than is presented on the project plans.
- Q. In the event that non-standard features become apparent during detailed design or the conversion to English units that were not identified in the original reports prepared and approved in the preliminary engineering phase, CONSULTANT shall prepare the necessary Fact Sheets for Design Exceptions following CALTRANS guidelines.
- R. CONSULTANT shall develop the Resident Engineer's (RE) File related to the design of the Project. Although the RE File is identified as a deliverable during the final stages of design, SONSULTANT shall update the RE file for the duration of the Scope of Services. CONSULTANT shall provide SANBAG with a written log of significant items which are



added to the RE File. The RE File shall be available for SANBAG/CALTRANS review at any time during the performance of the Scope of Services.

- S. CONSULTANT shall employ quality control procedures that identify potential risks and uncertainties related to construction of the project. Risks that may be encountered include, but are not limited to, impacts to adjacent properties, public safety, and environmental considerations. If at any time during the performance of this Scope of Services, CONSULTANT observes, encounters, or identifies any circumstance that could pose potential risk, CONSULTANT shall notify SANBAG.
- T. CONSULTANT shall coordinate with CALTRANS and all other agencies involved or potentially impacted by the project. CONSULTANT shall inform SANBAG prior to all contacts, meetings, and correspondence on project related issues with CALTRANS or any other agencies.
- U. CONSULTANT will be responsible for obtaining all rights of entry as necessary.
- V. Design construction support activities are not covered in this scope of services. SANBAG, if it chooses, will issue a separate scope of services and contract for design construction support activities with CONSULTANT upon completion of these Services.
- W. CONSULTANT shall prepare final plans, specifications, and estimate (PS&E) for construction of necessary soundwalls on Golden West Dr., Redlands. Eight (8) properties along the Golden West bluff are currently being environmentally evaluated. This scope includes the detailed engineering for these potential soundwalls. This is part of an independent SANBAG/City of Redlands project.

### **Topographic Mapping**

The CONSULTANT shall provide **English** topographic mapping of the Project area. *Metric* aerial topographic mapping will be available for use by the CONSULTANT.

The CONSULTANT shall recommend additional surveying as necessary. The recommendations shall be forwarded to SANBAG for SANBAG and CALTRANS review and concurrence prior to beginning any work.

### **Surveys**

#### **A. General Requirements**

1. CONSULTANT shall perform all surveys, necessary to complete the PS&E. CONSULTANT shall review the available data and perform the additional design surveys required for the design of the Project.
2. Field and office surveys not covered by the current CALTRANS Surveys Manual, shall be performed in accordance with accepted professional surveying standards including requirements of current edition of the State of California Professional Engineer's Act and Professional Land Surveyor's Act. In accordance with the Act, "responsible charge"

for survey services shall reside with a State of California Licensed Land Surveyor or Registered Civil Engineer (prior to January 1, 1982).

3. CALTRANS, with SANBAG concurrence, will designate the horizontal and vertical control monuments that are to be the basis of all CONSULTANT performed surveys. CALTRANS will provide the California Coordinate System values and/or elevation values for these monuments. CONSULTANT shall identify any control monuments requiring reestablishment and provide a reestablishment plan to SANBAG. Upon approval by SANBAG, CONSULTANT shall reestablish monuments per the reestablishment plan.

CALTRANS has designated that the NAD '83 California Coordinate System datum will be used for horizontal coordinate values.

4. All survey information developed by CONSULTANT shall be in English units.

B. Permits

CONSULTANT shall obtain applicable encroachment permits prior to beginning any field investigation. Additionally, if a traffic control plan is required, CONSULTANT shall prepare the plan. Such documents shall be forwarded to SANBAG/CALTRANS for their review and concurrence prior to beginning any field investigation.

C. Design Surveys to be Performed by CONSULTANT

CONSULTANT shall identify required design surveys and provide a work plan to SANBAG. With SANBAG's concurrence, CONSULTANT shall perform design surveys per the work plan. CONSULTANT surveys may include, but are not limited to, the following:

1. Surveys for detailed design of roadway, structures, retaining walls, soundwalls, drainage, sewer, and water facilities.
2. Survey control for geotechnical investigation, if required.
3. Surveys to verify and augment the aerial topographic mapping.
4. Supplemental surveys for preparation of cross-sections

D. Utility Location Surveys to be Performed by CONSULTANT

CONSULTANT shall identify surveys to verify the location of utilities in potential conflict with the Project. CONSULTANT shall provide a work plan for utility location surveys to SANBAG. With SANBAG's concurrence, CONSULTANT shall perform field surveys and update utility PS&E per the work plan.

E. Monumentation Surveys to be Performed by CONSULTANT

CONSULTANT shall identify surveys to perpetuate monuments that control the location of

subdivisions, tracts, boundaries, roads, streets, or highways, or provide survey control, affected by the proposed construction of the Project. CONSULTANT shall provide a work plan for monument perpetuation to SANBAG. With SANBAG's concurrence, CONSULTANT shall perpetuate monuments and file a record of survey per the work plan.

F. Deliverables

The deliverables shall conform to the following:

1. Survey points, lines, and monuments shall be established, marked, identified and referenced, as required to complete the work and in accordance with the requirements herein.
2. Survey notes, drawings, calculations, and other survey documents/materials shall be completed as required to complete the work and in accordance with the requirements herein.
3. A copy, except as otherwise specified herein, of all original survey documents resulting from this Scope of Services (including original field notes, adjustment calculations, final results and appropriate intermediate documents) shall be delivered to SANBAG who will forward said documents to CALTRANS. Said documents shall then become the property of CALTRANS. The original survey documents (or a copy, if the original is to be provided to SANBAG/CALTRANS) shall be retained by CONSULTANT for future reference.
4. When the survey is performed with a Total Station Survey System, the original field notes shall be a legible hard copy listing of the data (observations) as originally collected and submitted by the survey party. CONSULTANT's party chief shall sign the listing.
5. The final results of all surveys, as required, shall be delivered to SANBAG in the format specified below:
  - a. **Horizontal Control.** Alpha/numeric hard copy point listing with adjusted California Coordinate System northings and eastings and appropriate descriptions based on NAD '83 datum. (Spacing and density of horizontal control monuments shall be in accordance with Caltrans' Surveys Manual, Chapter 11-02.)
  - b. **Vertical Control.** Alpha/numeric hard copy benchmark listing with adjusted elevations on the 1929 NGVD and appropriated descriptions. (Spacing and density of vertical control monuments shall be in accordance with Caltrans' Surveys Manual, Chapter 11-02.)
  - c. **Topography.** Alpha/numeric hard-copy listing, hard-copy drawings and electronic files. Additions or modifications to the delivered topographic mapping and its symbology shall conform to current version of CALTRANS' Drafting and Plans Manual.
  - d. **Terrain.** For each cross-section: an alpha/numeric listing, hard-copy

drawing and computerized formatted file which is compatible with CALTRANS' computerized design systems. Computerized formatted cross-sections shall be provided on magnetic tapes, cassettes, or disks compatible with CALTRANS' computer systems.

#### 6. Records of Survey

- a. CONSULTANT shall develop a control map to direct monument recovery and recover all monuments affected by the Project.
- b. CONSULTANT shall verify the character of all points to be utilized in the Records of Survey.
- c. CONSULTANT shall tie all monuments found during the course of performing design surveys to the closest CALTRANS control.
- d. CONSULTANT shall reference the centerline and side lines of the Project to surrounding Sections, Blocks, and Tract corners.

#### 7. Construction Control Survey Map

- a. CONSULTANT shall provide a Construction Control Survey Map for the Project. At minimum, the map will include:
  - Centerline alignment data for all Project improvements and existing street centerlines
  - Control points identified in plan (horizontal, vertical, horizontal and vertical, and cadastral monuments)
  - Tabulated control point listing with full descriptions
  - Tabulated cadastral monument listing with full description
  - Horizontal and vertical control bases
  - Survey data sources.
- b. CONSULTANT shall provide a State Plane Coordinate Control Data List. The list shall include all geodetic control data used for the Project, including geodetic data provided by CALTRANS and SANBAG. The list shall include station name, latitude, longitude, northing, easting, elevation, etc. If available, data shall also include a full description of all photo control points used to for topographic mapping within the Project.
- c. CONSULTANT shall provide a State Plane Coordinate ASCII point file for all calculated points. CONSULTANT shall provide full descriptions of all monuments, set or found.
- d. CONSULTANT shall provide centerline alignment files for all permanent and temporary features.

#### G. Information to be provided by SANBAG or CALTRANS

1. English Control Diagram Maps.
2. Existing survey data and notes generated for the Project, as available.

### **Geotechnical Investigation and Materials Report**

#### **A. General Requirements**

1. CONSULTANT shall be required to review data provided by SANBAG and provide additional geotechnical explorations, laboratory testing, analyses and recommendations required for final roadway and structural design. To the extent that is possible, CONSULTANT shall utilize the existing information provided by SANBAG and shall not duplicate work which has been conducted during the preliminary engineering phase of the project. All additional field explorations shall meet CALTRANS requirements.
2. CONSULTANT shall provide experienced personnel, equipment, and facilities to perform materials sampling and testing.
3. All reports and plans shall bear the State of California Certified Engineering Geologist or Registered Professional Registration Seal with the signature, license number and registration certificate expiration date of the geologist or engineer responsible for the preparation of the report. The geologist or engineer responsible for the preparation of the reports shall be competent in geotechnical engineering with deep foundation experience.
4. In the event the existence of hazardous materials is discovered by CONSULTANT, CONSULTANT shall be required to immediately notify SANBAG.
5. In case of future construction claims against either SANBAG or CALTRANS, CONSULTANT shall be retained by SANBAG to provide expert testimony regarding CONSULTANT services.
6. All reports shall be prepared in English units.

#### **B. Permits**

1. CONSULTANT shall provide necessary applications for Encroachment permits onto State property. A Traffic Control plan, when required, shall be delivered to CALTRANS for review.
2. CONSULTANT shall identify all private property requiring Rights of Entry. CALTRANS will provide all Rights of Entry for access on private property.
3. CONSULTANT shall obtain all other encroachment permits.

#### **C. Geotechnical Services to be provided by CONSULTANT**

CONSULTANT shall prepare a Geotechnical Design Report (GDR) for the Project in

conformance with the CALTRANS Guidelines for Geotechnical Design Reports. The GDR shall provide, but is not limited to, the following:

1. Determination of subsurface conditions and subsoil properties at proposed structure sites necessary to make recommendations for design of structure foundations.
2. Determination of ground water conditions and impacts on foundation design and construction.
3. Determination of subsurface conditions and subsoil properties relating to foundation settlement and rate of settlement for embankment and structure loading.
4. Determination of impacts of geologic/geotechnical conditions on construction and recommended mitigation measures.
5. Identification and recommendations for geologic/geotechnical constraints.
6. Analysis for potentially liquefiable or collapsible soils and corresponding recommendations for design or mitigation measures.
7. Engineering analyses and calculations required to provide design parameters for static and pseudo-static analysis for slope stability and settlement.
8. Site seismicity studies and peak ground acceleration evaluations to provide a basis for estimating seismic design parameters for use in structure and embankment design (based upon published literature) and site investigations.
9. A listing of soil samples obtained from the field exploration program which have been tested in CALTRANS certified laboratories to evaluate the controlling engineering properties of the encountered subsoils. Assuming that the soil samples are free of contamination, laboratory testing may include, but is not limited to:

- |                                 |                          |
|---------------------------------|--------------------------|
| - Moisture and Density          | - Sieve Analysis         |
| - Shear Strength                | - Plasticity Index       |
| - Expansion Index               | - Resistivity, Ph        |
| - Sand Equivalent               | - Consolidation/Collapse |
| - Soluble Sulfate and Chlorides | - R-Value                |
| - Maximum Density               |                          |

#### D. Materials Report

CONSULTANT shall prepare a materials report for the project. The report shall comply with Topic 114, "Materials Report" of the Highway Design Manual. The Materials Report should include pavement structural section recommendations or pavement studies, culverts or drainage materials, corrosion studies, and materials or disposed sites.

#### E. Deliverables

1. Field Exploration map

CONSULTANT shall prepare a map detailing the field exploration plan. The map shall provide the following:

- a. Location of each proposed boring. Include depth of boring and the proposed finished surface elevation.
- b. Location and depth of all previous borings.
- c. Geometric layout provided from preliminary engineering.
- d. Information regarding property owner impacted by each particular boring, if available.

SANBAG and CALTRANS will review and approve the field exploration map prior to application for encroachment permits. All encroachment permits and rights of entry shall be obtained prior to scheduling of any field explorations.

## 2. Geotechnical Design Report

CONSULTANT shall submit a Geotechnical Design Report to SANBAG for CALTRANS and SANBAG review. Comments from the review will be submitted to CONSULTANT for incorporation into the final report. The number of copies of each report shall be determined prior to submittal.

## 3. Materials Report

CONSULTANT shall submit a Materials Report to SANBAG for CALTRANS and SANBAG review. Comments from the review will be submitted to CONSULTANT for incorporation into the final report. The number of copies of each report shall be determined prior to submittal.

## 4. Foundation Reports

CONSULTANT shall submit draft foundation reports to SANBAG for CALTRANS and SANBAG review. Comments from the review will be submitted to CONSULTANT for incorporation into the final reports. The number of copies of each report shall be determined prior to submittal.

## **Utility Design and Coordination**

### A. General Requirements

1. CONSULTANT shall prepare utility plan sheets in English units. CONSULTANT shall be responsible for all necessary unit conversions of relocation plans for incorporation on the utility plan sheets.
2. CONSULTANT shall update right of way requirements impacted by the design and relocation of utilities. CALTRANS shall coordinate with utility owners to determine right of way requirements for relocation of utilities.

B. Coordination

1. CALTRANS shall be considered the “Utility Coordinator” for the Project. CONSULTANT shall assist CALTRANS and SANBAG with meetings and correspondence to the utility companies affected by the Project.
2. CONSULTANT shall coordinate with SANBAG and CALTRANS to assist in the proper protection or relocation of affected utilities. Utility owners will prepare utility relocation plans. CONSULTANT shall provide appropriate Project plans that may assist the affected utility owner in the development of relocation plans. Some plans may require preparation in dual, English, and imperial units.
3. CONSULTANT shall review relocation plans prepared by utility owners to verify compatibility with the Project. CONSULTANT shall respond in writing to SANBAG and CALTRANS either confirming conformance of the relocation plans to the Project, or nonconformance to the Project and reasons therefor.

C. Utility Plans

1. CONSULTANT shall prepare an initial set of utility plans which compare all existing utilities to proposed design of the Project. Any utility which conflicts with the improvements proposed by the Project shall be highlighted.
2. CONSULTANT shall update the utility plans to show the disposition of each utility on the Project. Disposition shall include, but not limited to, the utility company name, original location, proposed location, and responsible party for relocation.

D. Deliverables

1. Utility Conflict Maps

CONSULTANT shall submit utility conflict maps to CALTRANS and SANBAG. The maps shall provide the following:

- a. Geometric layout of the Project with the existing utility locations.
- b. Highlight and label each utility that conflicts with the Project.
- c. Existing utility callouts shall include the owner and the disposition of the lines.
- d. Narrative descriptions shall accompany the utility conflict maps. These narratives shall list each utility that is in conflict with the Project. Information shall include, but not be limited to, the following:
  - Conflict label and drawing reference number for the utility conflict map on which the utility is highlighted and labeled.
  - Description, owner, and disposition of the utility
  - Description of the potential or actual conflict that will occur due to the Project.

The utility conflict maps will be used by SANBAG and CALTRANS to establish which utility companies are affected by the Project and need to be relocated. CONSULTANT shall identify those portions of utilities which require potholing.



Following the submittal of the utility conflict maps, the CONSULTANT shall inform SANBAG and CALTRANS in writing of any changes in the Project design that alter the utility conflict locations indicated on the maps.

## **Roadway Design**

### **A. General Requirements**

CONSULTANT shall prepare and deliver to SANBAG all plans, specifications, and estimates for roadway construction. SANBAG will forward said documents to CALTRANS for their review and approval. Except where specified herein, all CONSULTANT prepared plans, specifications, quantity calculations, and estimates shall be prepared in English units.

### **B. Right of Way Requirement Plan Maps**

#### **1. General**

CONSULTANT shall prepare Right of Way Requirement Plan Maps utilizing the Project layout sheets as a basis. CONSULTANT shall identify the limits required for the ultimate roadway operation of the Project (the “fee” area), limits required for related facilities such as drainage or utilities (easement areas), and limits required in excess of the fee and easement areas for construction of the Project (temporary construction easements). CONSULTANT shall identify access control limits where applicable.

Requirements shall reference the freeway centerlines (station and offsets), or where appropriate, centerlines of local roads or property lines. At minimum, the background elements on the Maps will include:

- a. Station lines and centerlines of roadways and drainage facilities.
- b. Layout lines of walls.
- c. Tops and toes of slope.
- d. Edge of travel way, edge of shoulder, curb and gutter, sidewalks, culverts, and other roadway appurtenances.
- e. Existing Bridges

#### **2. Deliverables**

CONSULTANT shall deliver the following Right of Way Requirement Plan Maps and coordinate geometry files to a location determined by SANBAG. Actual plans and files, as determined by SANBAG, may vary in quantity and content per submittal. The number of sets of each plan shall be determined prior to submittal. All Maps will have appropriate signature blocks for the CALTRANS oversight engineer (different from PS&E), and if necessary, appropriate revision blocks.

CALTRANS, SANBAG and/or SANBAG’s designee, and other agencies will review the plans after each submittal and transmit review comments to SANBAG. A comment review meeting may be scheduled between SANBAG, CALTRANS, and CONSULTANT, where the plans with comments will be presented.

### **C. Plans, Specifications, and Estimates**

## 1. General

All plans, specifications, quantity calculations, and estimates shall conform to CALTRANS requirements and shall be made available to SANBAG/CALTRANS for review and approval at stages specified in the Milestone Schedule and upon request.

## 2. Roadway Design

- a. All title, index, sections, layouts, profiles, quantities, construction details, and other related plan sheets shall be provided on CALTRANS standard size sheets. As directed by SANBAG, CONSULTANT shall also provide 11" x 17" reduced copy of the plan sets for all submittals.
- b. The CONSULTANT shall design the roadway structural section. The Traffic Index (TI) shall be provided to CONSULTANT by CALTRANS for use in the design of the roadway structural section. The R-value to be used for the design of the roadway structural section shall be submitted by CONSULTANT to CALTRANS and SANBAG for approval prior to final design of the structural section.
- c. CONSULTANT shall prepare and update right of way requirement layouts and files as part of the roadway design. CONSULTANT shall coordinate with CALTRANS Right of Way Engineering or SANBAG Consultant on changes to right of way requirements.
- d. CONSULTANT shall prepare a Project Narrative which provides a general overview of the Project. CONSULTANT shall also discuss significant design features and/or design exceptions related to the Project deliverables.

## 3. Deliverables

CONSULTANT shall deliver the following plan packages to a location determined by SANBAG. Actual plan packages, as determined by SANBAG, may vary in quantity and content per submittal. The number of sets of each plan, estimate or report shall be determined prior to submittal.

CALTRANS, SANBAG and/or SANBAG's designee, and other agencies will review the plans after each submittal and transmit review comments to SANBAG. A comment review meeting may be scheduled between SANBAG, CALTRANS, and CONSULTANT, where the plans with comments will be presented.

- a. 35% Submittal.
  - Title Sheet/Standard Plan/Key Map & Line Index
  - Typical Cross-Sections
  - Layout Plans (with Retaining Wall and Sound wall alignments), Profile Plans, and Superelevation Diagrams
  - Contour Grading Plans
  - Drainage Concepts
  - Conceptual Stage Construction and Detour Plans

- Utility Plans
  - Right of Way, Access Control, and Easement Requirements
  - Survey Data & Survey Map
  - Construction Cost Estimate
  - Specialty Structure Type Selection Package
- b. 65% Submittal.
- Project Narrative
  - Title Sheet/Standard Plan/Key Map & Line Index
  - Typical Cross-Sections
  - Layout Plans, Profile Plans, and Superelevation Diagrams
  - Construction Details
  - Contour Grading Plans
  - Drainage Plans and Profiles
  - Edge Drain Plans
  - Sanitary Sewer Plans, Profiles, and Details
  - Water Plans, Profiles, and Details
  - Utility Plans
  - Stage Construction, Traffic Handling Plans and Detours
  - Pavement Delineation Plans
  - Sign Plans
  - Retaining Wall Plans and Details
  - Sound Wall Plan, Details, and Quantities
  - Irrigation Crossover Conduit Plans
  - Right of Way, Access Control, and Temporary Construction Easement Requirements
  - Construction Cost Estimate
  - Quality Control Statement
- c. 95% Submittal.
- Project Narrative
  - Title Sheet/Standard Plan/Key Map & Line Index
  - Typical Cross-Sections
  - Layout Plans, Profile Plans, and Superelevation Diagrams
  - Construction Details
  - Contour Grading Plans
  - Drainage Plans, Profiles, Details, and Quantities
  - Edge Drain Plans and Quantities
  - Sanitary Sewer Plans, Profiles, Details, and Quantities
  - Water Plans, Profiles, Details, and Quantities
  - Utility Plans and Details
  - Stage Construction, Traffic Handling Plans, and Detours
  - Stage Construction Quantities
  - Pavement Delineation Plans, Details, and Quantities
  - Summary of Quantities
  - Sign Plans, Details, and Quantities
  - Bridge Mounted Signs
  - Retaining Wall Plans, Details, and Quantities
  - Sound Wall Plans, Details, and Quantities
  - Electrical Service Summary

- Right of Way, Access Control, and Temporary Construction Easement Requirements
  - Hydraulic/Hydrology Report
  - Construction Schedule
  - Draft Special Provisions (Roadway, Drainage, Construction Staging, Traffic Handling, Electrical, Retaining Walls, Sound Walls, Utilities, Pavement Delineation/Signs, Erosion Control/Landscaping)
  - Basic Engineer's Estimate/Construction Cost Estimate
  - Quality Control Statement
  - Resident Engineer's File
- e. 100% Submittal.
- Final PS&E (all items listed in 95% submittal)
  - Representative Cross Sections (15 meter Intervals)
  - Order Forms for State-Furnished Materials and Signs
  - Quality Control Statement

## **Structural Design**

### **A. General Requirements**

1. CONSULTANT shall prepare and deliver to SANBAG all plans, specifications, and estimates for the structures on the Project. SANBAG will forward said documents to CALTRANS DIVISION OF STRUCTURES (DOS) for their review and approval. All CONSULTANT prepared plans, specifications, quantity calculations, and estimates shall be prepared in English units and conform to CALTRANS requirements.
2. Each design shall be independently checked by a qualified engineer who is registered in the State of California. Each plan sheet shall show the name of the engineer who performed the independent check.
3. The calculations for both the design and independent design check shall be submitted as part of the PS&E submittal. The respective calculations shall bear the State of California Registered Professional Engineer registration seal with the signature, license number and registration certificate expiration date of the design engineer and independent check engineer.

### **B. Preliminary Design Review**

1. CONSULTANT shall review the as-built drawings of all existing bridge structures within the project vicinity.
2. CONSULTANT shall perform site surveys as necessary to determine existing conditions and topography and also to establish or verify construction survey controls.

### **C. Plans, Specifications, and Estimates**

#### **1. General**

All plans, specifications, quantity calculations, and estimates shall conform to

CALTRANS requirements and shall be made available to SANBAG/CALTRANS for review and approval at stages specified in the milestone schedule and upon request by SANBAG's Contract Manager or designee.

2. Special Provisions

CONSULTANT shall prepare project specific Structure Special Provisions in accordance with the Caltrans Plans, Specification and Estimates Guide. The Structure Special Provisions shall bear the State of California Registered Professional Engineer registration seal with the signature, license number and registration certificate expiration date of the Engineer who prepared the special provisions or the Engineer under whose direction they were prepared. A list of contact items with item descriptions, item numbers, units of pay, and item pay codes, but without quantities or estimated unit costs, shall be included in the front of the special provisions.

3. Estimate

CONSULTANT shall prepare quantity calculations and develop unit costs for items that are applicable to this project and shall prepare the bridge cost estimate, utilizing the CALTRANS Quantity summary and Estimate Forms. Quantities for all contract items, including cost of lump sum items, shall be substantiated by calculations. Quantity calculations shall be neat and orderly and shall show all sketches, diagrams and dimensions necessary to allow them to be independently used by field engineers. All quantity calculations shall be independently checked and substantiated with independent calculations.

4. Structure Design

CONSULTANT shall prepare project specific Structure Special Provisions in accordance with the Caltrans Plans, Specification and Estimates Guide. The Structure Special Provisions shall bear the State of California Registered Professional Engineer registration seal with the signature, license number and registration certificate expiration date

5. Deliverables.

As required, the following submittals shall be delivered to SANBAG. The specific number of plans, estimates, and reports shall be determined prior to submittal.

a. General Plan/Type Selection

CONSULTANT shall prepare and submit a general plan for the specialty structures. No further design work will be performed until DOS and SANBAG require a Type Selection Report. If necessary, a Type Selection Review Meeting will be held in Sacramento, in which CONSULTANT shall be prepared to discuss and provide information on foundation requirements, hydrological requirements, falsework requirements, seismic and aesthetic considerations, traffic handling, construction cost, and other pertinent information that is needed to determine the proper structure type.

A Type Selection Review Meeting will be scheduled a minimum of 2 weeks following the receipt of the Type Selection Report which consists of the proposed General Plan, General Plan Estimate, Type Selection Memo, Vicinity Map, and Project Seismic Design Criteria. The results of the meeting will be summarized in writing to the CONSULTANT within 2 weeks following the meeting. Within 2 weeks after receiving written approval of the proposed General Plan and structure type, the CONSULTANT shall furnish OSFP with rescued copies of the approved General Plan. The number of copies will be determined at time of submittal.

### **Sound Walls**

- A. CONSULTANT shall prepare a sound wall plan. A Sound wall plan shall provide the location, length, height, typical sections, log of borings, and material and cost estimate calculations.
- B. CONSULTANT shall make provisions in the sound wall plan, specifications, quantity calculations, and estimates for one alternative construction method.
- C. CONSULTANT shall update right of way requirements, as needed to incorporate temporary construction easements for sound wall.
- D. CONSULTANT shall prepare independent sound wall plans, specifications, quantity calculations, and estimates for construction of the walls along the Golden West Dr. bluff.

### **Retaining Walls**

- A. CONSULTANT shall be required to prepare all retaining wall plans. Said plans shall include wall location, height, typical sections, log of test borings, and material and cost estimate calculations. The extent of retaining wall construction shall be determined during the review of preliminary roadway engineering.
- B. CONSULTANT shall update right of way requirements, as needed to incorporate temporary construction easements for retaining walls.
- C. All required retaining walls are anticipated to be standard type CALTRANS walls found in CALTRANS Standard Plans. CONSULTANT shall notify SANBAG immediately upon determination that a non-standard retaining wall will be required for the Project.

### **Drainage Design**

- A. General Requirements
  - 1. CONSULTANT shall be responsible for the design, including hydrologic computations of all drainage facilities necessary to provide adequate drainage of the Project, including pavement drainage, runoff generated within the Project Area, inflows from watersheds beyond the Project, and interim drainage during construction. Except where specified herein, all plans, specifications, quantity calculations, estimates, and reports shall be in

English units and conform to CALTRANS requirements. Where conflicts in methodology occur, CONSULTANT shall notify SANBAG immediately for resolution.

2. All reports shall be prepared by a qualified Civil Engineer who is registered in the State of California, and shall bear the State of California Registered Professional Engineer registration seal with his signature, license number, and registration certificate expiration date of the Engineer responsible for the preparation.

B. Permits

CONSULTANT will prepare exhibits required to assist SANBAG in obtaining any permits and construction/maintenance agreements.

C. Hydrology Reports

1. Off-site Hydrology Report

- a. CONSULTANT shall prepare an off-site hydrology report for the Project. The report shall be prepared in English units and conform to CALTRANS standards.
- b. Layout plans identify the location of existing and, if necessary, proposed drainage facilities shall be included within the report.
- c. The report shall be submitted to SANBAG and CALTRANS for review. Comments generated from these reviews will be returned to CONSULTANT for incorporation into the final plan. The number of copies of the report shall be determined prior to submittal.

2. On-site Hydrology Report

- a. CONSULTANT shall provide an on-site hydrology report for the Project. The report shall be prepared in English units and conform to CALTRANS standards.
- b. Layout plans identifying location of proposed drainage facilities shall be included within the report.
- c. The report shall be submitted to SANBAG and CALTRANS for review. Comments generated from these reviews will be returned to CONSULTANT for incorporation into the final plan. The number of copies of the report shall be determined prior to submittal.

D. Reports and Plans

1. General

- a. CONSULTANT shall update right of way requirements as needed to incorporate drainage and temporary construction easements for drainage facilities.
- b. Conflicts with other utilities, including other drainage facilities, shall be identified in plan and profile.

## 2. Drainage Report and Plans

- a. Following CALTRANS and other agency review of the off-site and on-site hydrology reports, the CONSULTANT shall perform hydraulic analysis for all of the drainage facilities on the Project. The corresponding drainage report shall be prepared in English units and shall incorporate updated hydrology calculations.
- b. Drainage plans and profiles of proposed drainage facilities shall be included within the report. Modifications to existing facilities shall identified on the plans.
- c. The drainage report shall be submitted to SANBAG and CALTRANS for review.

## 3. Edge Drains

CONSULTANT shall prepare edge drain plans for the pavement structural section drainage system.

## **Traffic Engineering**

CONSULTANT shall prepare the necessary traffic handling plans showing long-term closure of lanes, local road and highway detours, and number of available lanes. Included in these plans are stage construction, construction traffic handling and detours, signing, striping, lighting, and signal modifications as presented below:

### A. Stage Construction

CONSULTANT shall prepare stage construction plans. Plans shall reflect the construction of all improvements identified on the plans. The plans shall include existing roadbeds, construction to be performed in the stage shown, traffic direction, number of lanes and future construction. CONSULTANT shall continually evaluate and update the stage construction plans during all phases of design.

### B. Construction Traffic Handling Plans and Detours

1. CONSULTANT shall prepare a Traffic Management Plan. The plan shall conform to CALTRANS standards.
2. The Traffic Management Plan shall be submitted to SANBAG and CALTRANS for review. Comments generated from this review will be returned to CONSULTANT for incorporation into the final plan. The number of copies of the plan shall be determined prior to submittal.
3. CONSULTANT shall prepare traffic handling plans which show long-term closure of lanes, detours and number of available lanes. Included in these plans are signing, striping, and modifications. CONSULTANT shall continually evaluate and update the



traffic handling plans during the design process.

4. CONSULTANT shall update right of way requirements as needed to incorporate temporary construction easements for traffic detours.

C. Signing Plans

CONSULTANT shall prepare final plans, specifications, and estimates for signing plans including layouts showing the locations of roadside and overhead signs, special sign details, lighting, and any structural or foundation requirements in accordance with applicable standards and design criteria. Any requirements for electrical service shall be coordinated with the local electric utility by CONSULTANT.

D. Pavement Delineation Plans

CONSULTANT shall prepare final plans, specifications, and estimates for pavement delineation in accordance with applicable CALTRANS standards and design criteria.

E. Electrical Plans

CONSULTANT shall prepare final plan, specifications, and estimates for electrical plans including layouts showing lighting standard and conduit locations, other lighting appurtenances, and any structural or foundation requirements in accordance with applicable standards and design criteria. Any requirements for electrical service shall be coordinated with the local electric utility by CONSULTANT.

**D. FURNISHED MATERIALS**

SANBAG will provide CONSULTANT with a copy of the draft PR/PSR, upon approval final PR/PSR, the environmental document, the mandatory and advisory fact sheets, and the GADs.

**E. ADMINISTRATION**

**SANBAG Project Management and Administration**

A As part of their management activities SANBAG shall:

1. Conduct ongoing reviews of CONSULTANT's progress in performing the work and furnish technical comments in a timely manner.
2. Review certain types of correspondence such as, work requests to subconsultants, initial contact letters, sensitive correspondence, and other letters as necessary.
3. Coordinate the distribution of public information.

4. Review CONSULTANT's Quality Control Plan and CONSULTANT's conformance to its Quality Control Plan.
5. Provide a focal-point contact for all questions, requests, and submittals.
6. Review the Project Control documents (including subconsultants) submitted by CONSULTANT to ensure their understanding of the level of information required, reporting procedures, report cycle, and the intended use of each.
7. Review CONSULTANT's detailed Critical Path Method (CPM) Logic Network Schedule; note any additions, deletions, or other changes; and return it to CONSULTANT with comments for revision.
8. Receive and review monthly progress reports from CONSULTANT.
9. Review with CONSULTANT, requests for change orders and/or extensions of time when such requests are determined to be necessary.
10. Have final review and approval over all contractual payments and changes.

#### **CONSULTANT Project Management and Administration**

- A. CONSULTANT management activities include, but are not limited to:
  1. Maintaining suitable office facilities to serve as the Contract office for the duration of the Contract in the location specified in CONSULTANT's proposal.
  2. Maintaining an adequate staff of qualified support personnel to perform the work necessary to complete the Project.
  3. Establishing internal accounting methods and procedures acceptable to SANBAG for documenting and monitoring Contract costs.
  4. Providing cost-to-date, schedule, progress, staffing, and related data to SANBAG as a part of the regular monthly progress and payment process.
- B. CONSULTANT's work shall be performed and/or directed by those key personnel identified in their proposal. Any changes in the indicated key personnel shall be subject to prior review and approval by SANBAG in writing. Any change in CONSULTANT's officer-in-charge of the Services, as described in the General Terms and Conditions of this Contract, shall be subject to prior review and approval by SANBAG.
- C. Due to the nature and scope of the required services, it may be desirable for the CONSULTANT to subcontract portions of the Services. Adding Subconsultants to the original proposal team must be approved in writing by SANBAG prior to initiation of any Services. There could be instances whereby a subconsultant's portion of the project is greater than 49%. In the event this occurs, CONSULTANT shall bring it to SANBAG's attention immediately. SANBAG's Contract Manager will have the authority to grant

exception. Throughout this effort CONSULTANT shall be the single source of contact and management of all subcontractors. Subcontractor management will include the coordination time required for all aspects of the Project including design, processing, and accounting.

- D. CONSULTANT shall provide to SANBAG copies of all written correspondence between CONSULTANT and any party pertaining specifically to the Project. Copies shall be furnished within five calendar days of receipt of said correspondence from any party, or five calendar days prior to mailing of correspondence to any party for review. CONSULTANT is also responsible for recording and distributing the minutes of all meetings pertaining to the Project at which CONSULTANT is present.
- E. CONSULTANT shall give written notice to SANBAG within seven (7) working days after CONSULTANT knows or should know of any cause or condition which might, under reasonable foreseeable circumstances, result in delay for which CONSULTANT may request an extension of time to complete Services.

### **Project Controls**

- A. As part of the Project Controls effort CONSULTANT shall, at the introductory meeting, present SANBAG with samples of their proposed project control documents for SANBAG's review. These documents shall include, but are not limited to:
  - 1. Bar Chart(s) Schedules
  - 2. Progress Curve(s)
  - 3. Sample Amendment Format
  - 4. Sample Narrative Format(s)
  - 5. Sample Estimate Format(s)
  - 6. Earned Value Cost Report
- B. CONSULTANT's Project Control System shall be able to:
  - 1. Determine the critical path for the Services in Contract.
  - 2. Forecast dates for intermediate milestones and project completion.
  - 3. Provide a clear format to incorporate progress data on each activity.
  - 4. Provide reports showing actual progress compared to scheduled (planned) progress, and actual cost of services performed compared to (1) budgeted costs for services performed and (2) budgeted cost for services scheduled.
  - 5. Forecast possible delays and/or resource shortages.
  - 6. Provide a basis for replanning, including resource usage to recover from delays, allow schedule improvement, or accommodate other changes in the work.

7. Provide projected manpower requirements and dollar costs based on current performance.
  8. Provide current project cost estimate information.
  9. Provide all the estimates necessary to assist in confirming the construction budget.
- C. Within 15 working days (or as requested by SANBAG) of assignment of services the CONSULTANT shall submit to SANBAG for their review, a Bar Chart Schedule showing the Critical Path and identifying all Project development activities and milestones. SANBAG will review these documents and return them to CONSULTANT with notes and comments as soon as possible in order to validate the planning and cost control procedures within the first calendar month of performance period.
- D. As the Contract work progresses, CONSULTANT may discover the need to change the schedule to improve productivity or accommodate new or changed conditions. Any proposed change to the schedule shall be presented to SANBAG for review and validation prior to incorporation in the schedule.
- E. CONSULTANT shall report in a timely manner, through correspondence or progress reports, whenever it appears that approved schedules will not be met whether or not the reasons are within the CONSULTANT's control. In the event the Scope and Schedule of the Services is modified, and the modified Schedule is approved by SANBAG, CONSULTANT shall submit a revised Milestone Schedule. CONSULTANT shall perform the Services in accordance with the latest approved revision Milestone Schedule.

### **Monthly Progress Reports**

- A. On a monthly basis, CONSULTANT shall prepare and submit to SANBAG a monthly status report that indicates the work progress achieved during the period. The report shall summarize the actual work progress compared with estimated progress and will identify problem areas, provide evaluations, recommendations and an outline on the process which CONSULTANT, and SANBAG will follow to rectify the problem(s). The progress report shall be submitted with the monthly invoice. As a minimum, the monthly report should address the following specific areas:
1. Time related Project status via a bar chart schedule
  2. Physical progress
  3. Amendment summary history
  4. Narrative status report
  5. Earned Value Report

6. Graphical comparisons for actual progress vs. earned and planned progress for: physical (%complete), performance (hours complete) and cash flow.
- B. CONSULTANT shall have the ability to monitor and update its Detailed Project Control Schedule during the execution of the work and shall submit at each Progress Meeting, an updated four-week, horizon schedule to be used in monitoring the progress of the work.
- C. A Progress Meeting between CONSULTANT, CALTRANS, and SANBAG shall be held, at minimum, on monthly basis to discuss the design progress, potential problems, plans for the next period, and other progress issues. SANBAG and CALTRANS will establish with CONSULTANT the dates and times of these meetings. Three calendar days prior to each progress meeting, CONSULTANT shall provide SANBAG with a typewritten agenda for the meeting. CONSULTANT shall prepare typewritten meeting minutes and submit them to SANBAG and CALTRANS within seven calendar days after the meeting. The minutes shall indicate issues discussed and the resolution or action required to resolve any issues.
- D. Project Coordination Meetings may be called by SANBAG, CALTRANS or the CONSULTANT at any time that any party requires discussion of Project issues. CONSULTANT shall prepare minutes of the meeting and submit them to SANBAG and CALTRANS.

#### **Quality Assurance**

- A. CONSULTANT has **total responsibility** for the accuracy and completeness of all deliverables and any other work assigned to CONSULTANT. All services and deliverables furnished under this Scope of Services shall meet that responsibility through the implementation of a Quality Assurance Plan. CONSULTANT's Quality Assurance Plan shall be in effect throughout the entire Contract and, at minimum, shall establish the process necessary to ensure the following:
  1. All deliverables and services shall be provided in a professional manner and meets the standards set forth herein.
  2. CONSULTANT shall maintain a set of Project files that are indexed in accordance with CALTRANS' Project Development Uniform File System.
- B. CONSULTANT shall submit to SANBAG within 30 calendar days after receipt of Notice to Proceed two copies of their Quality Assurance Plan. SANBAG will review the plan established by CONSULTANT to determine if quality assurance procedures are adequate and appropriate to the complexity of the Project requirements. Review comments will be returned to CONSULTANT within 14 calendar days. If appropriate, the revised plan, which incorporates the comments of SANBAG, should be resubmitted within seven calendar days of receipt of comments.
- C. Evidence that the Quality Assurance Plan is functioning will be periodically confirmed by SANBAG. Deliverables that do not conform to the approved plan will be returned to CONSULTANT without review by SANBAG.

#### **Reproduction Services**

CONSULTANT shall provide the reproduction services required for the Project inclusive of the number of individual sets to be delivered for the submittal tasks outlined in this Scope of Services.

**Submittal and Reviews**

- A. Reports prepared by CONSULTANT shall be submitted in draft form, and opportunity provided for SANBAG and CALTRANS to review and direct revisions prior to formal submittal. If so requested by SANBAG and CALTRANS, CONSULTANT shall make other submittals in draft form to provide opportunity for review and revisions.
- B. If CONSULTANT fails to submit the required deliverable items set forth in this Scope of Services, SANBAG shall have the right to withhold payment and/or terminate CONSULTANTS contract in accordance with the provisions entitled "Termination" included in this Contract.

# CORRIDOR MOBILITY IMPROVEMENT ACCOUNT

## Project Fact Sheet

<b>Lead Agency: San Bernardino Associated Governements (SANBAG)</b>						<b>Fact Sheet Date:</b>		<b>05/03/07</b>
Contact Person	Tony Grasso, Executive Director / Darren Kettle, Director of Freeway Construction							
Phone Number	909-884-8276			Fax Number	909-885-4407			
Email Address	tgrasso@sanbag.ca.gov / dkettle@sanbag.ca.gov							
<b>Project Information:</b>								
County	Caltrans District	PPNO *	EA *	Region/MPO/ TIP ID*	Route / Corridor *	Post Mile Back *	Post Mile Ahead *	
Sbd	8	1132L	0F150	200434	10	33.3	36.9	
* NOTE: PPNO & EA assigned by Caltrans. Region/MPO/TIP ID assigned by RTPA/MPO. Route/Corridor & Post Mile Back/Ahead used for State Highway System.								
Legislative Districts	Senate: 31				Congressional: 40			
	Assembly: 63, 65							
Implementing Agency (by component)	E&P (PA&ED): SANBAG				PS&E: SANBAG			
	R/W: SANBAG				CON: SANBAG			
Project Title	I-10 Westbound Mixed Flow Lane Addition							
<b>Location - Project Limits - Description and Scope of Work</b> (Provide a project location map on a separate sheet and attach to this form) On I-10 in Redlands and Yucaipa - Construct one westbound mixed flow lane from west of Live Oak Canyon Road Interchange to east of Ford Street overcrossing. The project: · Is included in the 2004 SCAG RTP as a gap closer - to reduce commuter delay between population rich and employment rich areas. · Improves California economic competitiveness and quality of life by reducing congestion for consumer and commercial vehicles.								
<b>Description of Major Project Benefits</b>								
Daily Vehicle Hours of Delay Saved		868 Hrs.						
Daily Peak Hour Person-Minutes Saved		69,194 Min.						
· Provides capacity to accommodate future growth to one of the fastest growing areas in the region. · Improves a choke point by eliminating merge conflicts. · Extends the existing mixed flow lane to major access points. Other: · Without improvement, delay will continue to increase as land development continues to infill the urbanized area.								
<b>Corridor System Management Plan</b>								Month/Year
Lead Agency:								Caltrans
Plan Adoption Date:								May-08
Plan Implementation Date:								Jun-08
N/A								
<b>Project Delivery Baseline (Milestones)</b>								Month/Year
Begin Environmental Phase (PA&ED)								Jul-04
Draft Environmental Document Milestone		Document Type: CE/CE						
Draft Project Report Milestone								Dec-07
End Environmental Phase (PA&ED Milestone)								Aug-07
Begin Design Phase								Aug-07
End Design Phase (Plans, Specifications, and Estimates Milestone)								Oct-09
Begin Right-of-Way								Aug-07
End Right-of-Way (Right-of-way Certification Milestone)								Oct-09
Begin Construction Phase								Jan-10